

ENGLAND'S DOMESTIC CHEMISTS:  
SCIENCE AND CONSUMERISM IN EIGHTEENTH-CENTURY RECIPE COLLECTIONS

A Thesis Submitted to the College of  
Graduate Studies and Research  
in Partial Fulfillment of the Requirements  
for the Degree of Masters of Arts  
in the Department of History  
University of Saskatchewan  
Saskatoon

By  
Katherine J. Allen

© Copyright Katherine J. Allen, August, 2011. All rights reserved.

### Permission to Use

In presenting this thesis in partial fulfillment of the requirements for a Postgraduate degree from the University of Saskatchewan, I agree that the Libraries of this University may make it freely available for inspection. I further agree that permission for copying of this thesis/dissertation in any manner, in whole or in part, for scholarly purposes may be granted by the professor or professors who supervised my thesis/dissertation work or, in their absence, by the Head of the Department or the Dean of the College in which my thesis work was done. It is understood that any copying or publication or use of this thesis/dissertation or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the University of Saskatchewan in any scholarly use which may be made of any material in my thesis/dissertation.

Requests for permission to copy or to make other uses of materials in this thesis/dissertation in whole or part should be addressed to:

Head of the Department of History

University of Saskatchewan

Saskatoon, Saskatchewan S7N 5A5

Canada

OR

Dean

College of Graduate Studies and Research

University of Saskatchewan

107 Administration Place

Saskatoon, Saskatchewan S7N 5A2

Canada

## Abstract

This thesis examines the role of eighteenth-century recipe collections within a social milieu fixated on natural philosophy and experimental discovery. As medical sources, recipe collections have allowed historians to investigate approaches to early modern sickness alongside gender and class constructs surrounding authorship and readership. Little attention, however, has been given to the distinct nature of eighteenth-century collections and their place within the history of science. This thesis uses the manuscript of Elizabeth Jenner, an eighteenth-century compiler and distillation enthusiast, to explore how distillation of medicinal remedies established its place in the eighteenth century as a leisure pursuit of scientifically accomplished recipe compilers. This study offers a new perspective on the role of trust and credibility in eighteenth-century culture – beyond the confines of elite scientific societies – by analyzing the authorship strategies and scientific rhetoric found in recipe collections used to establish confidence of efficacy in remedies. Equipment and distillation techniques used in domestic medicine are explored to stress the kitchen's role as a multi-purpose and non-feminized space of scientific inquiry. As a space, the household is also a location of production and consumption within the medical marketplace and the broader economy. From everyday commodities to exotic botanicals, the *materia medica* used in recipes highlight the role of domestic medicine within the consumer revolution and an emerging British empire. This project contributes to a number of historiographies by addressing the value of recipe collections as sources of science, consumerism, and material history, permitting further consideration of the significance of domestic medical activities as part of the vibrant intellectual and socio-economic environment of the eighteenth century. This historical re-appraisal of the eighteenth-century recipe collection aims to uncover the often unassuming roles of England's domestic chemists.

## Acknowledgments

This thesis would not have been possible without the guidance and support from the following people:

I thank my parents Diana and Vic Allen for their unconditional love, advice, and feedback and all my family members for their encouragement.

Thank you to my friends, both new and old, for supporting me through the challenges of graduate studies and through the difficulties of moving to a prairie city.

I am grateful to my committee members Dr. Angela Kalinowski, Dr. Frank Klaassen, and Dr. Ray Stephanson for their comments on my thesis.

I owe special thanks to Dr. Larry Stewart for challenging me to think critically and for his mentorship.

Most of all, I offer my sincerest gratitude to my supervisor, Dr. Lisa Smith, who has supported me in my writing process with endless patience, constructive criticism, and valuable advice. I thank her for introducing me to the study of recipe collections and for inspiring me to pursue a career in eighteenth-century studies. No words can adequately convey her dedication as my mentor.

## Table of Contents

Abstract .....	ii
Acknowledgments.....	iii
Table of Contents .....	iv
List of Figures and Tables .....	v
A Note on Primary Sources .....	vi
INTRODUCTION .....	1
CHAPTER ONE .....	16
Authorship, Empirical Writing, and Trust in Eighteenth-Century Recipe Collections	
CHAPTER TWO .....	38
The Experimental Kitchen: Equipment and Techniques in Distillation Recipes	
CHAPTER THREE.....	67
Ingredients for Empire: Recipe Collections as Sources Consumerism and Early Imperialism	
CONCLUSION.....	97
Bibliography .....	101

### List of Figures and Tables

Figure 1.1 Title Statements of Efficacy in Jenner's Manuscript .....	25
Figure 1.2 In-Text Statements of Efficacy in Jenner's Manuscript .....	26
Figure 1.3 Title Statements of Efficacy in <i>The Queen's Closet Opened</i> .....	34
Figure 1.4 In-Text Statements of Efficacy in <i>The Queen's Closet Opened</i> .....	34
Figure 2.1 Equipment and Techniques in Jenner's Manuscript .....	51
Table 2.1 Equipment in Jenner's Manuscript .....	52
Figure 2.2 Techniques in Jenner's Manuscript .....	54
Table 2.2 Equipment in <i>The Compleat Housewife's</i> Distillation Chapter .....	62
Figure 2.3 Techniques in <i>The Compleat Housewife's</i> Distillation Chapter .....	64
Figure 3.1 Production and Consumption in the Medical Marketplace .....	75
Figure 3.2 Herbal Ingredients in Jenner's Manuscript .....	80
Figure 3.3 Non-Herbal Ingredients in Jenner's Manuscript .....	84
Figure 3.4 Ingredients in Volume 1 of Boyle's <i>Medicinal Experiments</i> .....	93

### A Note on Primary Sources

My transcription of Jenner's manuscript retains original spelling, punctuation, and grammar. Where primary source quotations are included in this thesis, raised letters and upper case script have been modified for ease of readership, except where needed for emphasis. Words that were unclear or missing are clarified in brackets or indicated with [sic]. When using re-printed editions of primary documents, I adopted the conventions used by the editors.

Unless otherwise indicated, all definitions are cited from the *Oxford English Dictionary* Online.

## Introduction

Early modern recipe collections were diverse creations containing culinary, medicinal, and household advice. Eighteenth-century collections, however, were of a different nature. These recipe collections incorporated increasingly specialized medical content while isolating medicinal recipes from culinary, particularly with the popularization of purchasable chemical nostrums. Most significantly, these sources reflect the changing attitudes towards natural philosophy and ‘New Science’ domestically in England.<sup>1</sup> In this study, I examine domestic medicine and recipe testing within the context of scientific experimentation, considering domestic practitioners, particularly women, as active participants in natural philosophy. The second aspect of this study is to investigate the effects of the consumer revolution, print culture, and leisure time on the use of recipe collections.<sup>2</sup> Medicinal recipe collections from this era are situated at the intersection of the professionalization of medicine, institutionalization of science, privatization of the household, and imperialization of the natural world. As such, these collections offer insight into the social and intellectual atmosphere of the so called long eighteenth century. My thesis contends that recipe compilers used their collections, in part, to preserve scientific knowledge in the home.

One of the challenges of this study is that it falls within a relatively new area of research. Historians have focused primarily on recipe collections in the seventeenth century as sources of domestic caregiving. Within these studies, gender and class have been main themes, specifically

---

<sup>1</sup> Throughout my thesis I use the terms ‘science’ and ‘natural philosophy’ interchangeably out of convenience but they are intended to be read as the same concept. Natural philosophy comprises the pre-modern scientific study of nature and the physical universe.

<sup>2</sup> The term “consumer revolution” was coined by Neil McKendrick. See: Neil McKendrick, “The Consumer Revolution of Eighteenth-Century England” in *The Birth of a Consumer Society: The Commercialization of Eighteenth-Century England*, eds. Neil McKendrick, John Brewer and J.H. Plumb (Bloomington: Indiana University Press, 1982), 9.



aristocratic women as medical practitioners. Authorship and the broader literary practices of recipe construction as well as the economics of domestic healthcare have also been studied.<sup>3</sup> Historians have argued that recipe collections were in decline by the 1680s; however, medicinal recipe collections continued well into and beyond the eighteenth century, serving as social narratives of a growing social obsession with health and sickness and records of household consumption. Consequently, eighteenth-century collections have been largely overlooked, particularly in how they differ from earlier collections.<sup>4</sup> My thesis uses a case study approach of one eighteenth-century manuscript collection to highlight the transformations occurring in recipe collecting during this period. As part of these changes, the materials and mechanical processes of domestic medicine described within recipe collections have been little explored, but can be read as evidence of the broadening consumer market and changing attitudes towards medicine and science. This historiographical approach of examining materials and techniques is becoming popular for historians of science to uncover the culture of experimental philosophy.<sup>5</sup> My study examines the rhetoric, equipment, techniques, and ingredients found within eighteenth-century medicinal recipe collections to address the steps involved in making medicine, specifically distillation remedies. I situate my analysis within a framework of several historiographies: medicine, science, gender, class, and consumption to offer a wider historical context.

---

<sup>3</sup> Jennifer K. Stine, "Opening Closets: The Discovery of Household Medicine in Early Modern England" (Ph. D. dissertation, Stanford University, 1996); Jayne Elisabeth Archer, "Women and Alchemy in Early Modern England" (Ph. D. thesis, Cambridge University, 1999); Lisa Wynne Smith, "Women's Health Care in England and France (1650--1775)" (Ph. D. thesis, University of Essex, 2002); Sara Pennell, "The Material Culture of Food in Early Modern England, circa 1650-1750" (D. Phil. thesis, University of Oxford, 1997); Elaine Leong, "Medical Recipe Collections in Seventeenth-century England: Knowledge, Text and Gender" (D. Phil. thesis, University of Oxford, 2005); Anne Stobart, "The Making of Domestic Medicine: Gender, Self-Help and Therapeutic Determination in Household Healthcare in South-West England in the Late Seventeenth Century" (Ph.D. thesis, Middlesex University, 2008).

<sup>4</sup> As noted by Smith, "Women's Health Care" 51.

<sup>5</sup> Ursula Klein and E.C. Spary, "Introduction: Why Materials?" in *Materials and Expertise in Early Modern Europe: Between Market and Laboratory* eds. Ursula Klein and E.C. Spary (Chicago: Chicago University Press, 2010), 16.

Establishing the connections between the historiographies of medicine and science has proven challenging for eighteenth-century historians. Some scholars have argued that the scientific revolution had an insignificant influence on seventeenth-century medicine and that ‘New Science’ did little more than refine and consolidate the “conceptual foundations of classical medicine”.<sup>6</sup> However, this approach creates false boundaries in the communication of knowledge; separating two intellectual practices that were united in early modern society. Several historians of early modern science have asserted that we need to consider a wider range of experimental activities related to natural philosophy to comprehend better the public’s role in scientific enterprise.<sup>7</sup> Yet, few historians of science have considered daily domestic activities, particularly domestic medicine, as science. Historian of medicine Harold Cook has bridged historiographical gaps between medicine, science, and commerce, by investigating how local practices influenced the “universalism of scientific knowledge”.<sup>8</sup> The close relationship between medicine and scientific experimentation is evident at the household level, and recipe collections challenge the older argument of medicine and science evolving separately. These sources complicate the historiographical division of private and public activities in medicine, science, and commerce by illustrating the extent information could be exchanged across writing media and between gender and class groups. Recipe collections are hence useful models of how new perceptions of natural knowledge shaped older forms.

Part of the close link between domestic medicine and science lay in the definition of ‘experiment’. There was no one class or type of ‘scientific experimentation’ in the creation of

---

<sup>6</sup> N.D. Jewson, "Medical Knowledge and the Patronage System in 18th Century England", *Sociology* 8, no.3, (1974): 370-372.

<sup>7</sup> See for example, Larry Stewart, *The Rise of Public Science: Rhetoric, Technology, and Natural Philosophy in Newtonian Britain, 1660-1750* (New York: Cambridge University Press, 1992), xv-xvi.

<sup>8</sup> Harold J. Cook, *Matters of Exchange: Commerce, Medicine, and Science in the Dutch Golden Age* (New Haven: Yale University Press, 2007); Harold J. Cook, "The History of Medicine and the Scientific Revolution," *Isis* 102 (2011): 108.

natural knowledge.<sup>9</sup> An experiment was simply an account of an event acting as “a warrant for the truth of a universal knowledge claim”.<sup>10</sup> A recipe, which had mutable outcomes in each preparation, is one such experimental account. The word *recipe* (the Latin imperative ‘take’) prescribes an action, or testing, suggesting that a recipe was guidance for an experiment.<sup>11</sup> Sara Pennell remarks: “The essential paradox of both the recipe and the experimental observation is that they are tests that surely render complete demystification impossible. As a record of practice they are vulnerable precisely because, as texts of action, they always evade standardization.”<sup>12</sup> Medieval recipe collections were often cryptic, written without quantities or comprehensive directions, and were used as memory prompts rather than instruction manuals.<sup>13</sup> Historians have argued that by the late seventeenth century however, ‘how-to’ instructions and advice or ‘secrets’ found in early modern sources of knowledge, like recipe collections, were deemed techniques – situating them in close proximity to scientific practice.<sup>14</sup> I am not suggesting that recipe collections emerged from Baconian and Newtonian science, as indeed they were present in the classical and medieval eras. Rather, I argue that what is unique to late seventeenth and eighteenth-century collections are the parallels between scientific reports and recipe collections in writing styles, equipment, and technical accuracy. These parallels indicate a shift in the

---

<sup>9</sup> Peter Dear, *Discipline and Experience: The Mathematical way in the Scientific Revolution* (Chicago: Chicago University Press, 1995), 12.

<sup>10</sup> Dear, *Discipline and Experience*, 6.

<sup>11</sup> William Eamon, *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture* (Princeton: Princeton University Press, 1994), 131.

<sup>12</sup> Sarah Pennell, “Perfecting Practice? Women, Manuscript Recipe and Knowledge in Early Modern England” in *Early Modern Women’s Manuscript Writing: Select Papers from the Trinity/Trent Colloquium*, eds. Victoria Burke and Jonathan Gibson (Aldershot: Ashgate, 2004), 246.

<sup>13</sup> Elizabeth Tebeaux, “Women and Technical Writing, 1474-1700: Technology, Literacy, and Development of a Genre” in *Women, Science and Medicine 1500-1700: Mothers and Sisters of the Royal Society*, eds. Lynette Hunter and Sarah Hutton (Thrupp: Sutton Publishing Limited, 1997), 38.

<sup>14</sup> Eamon, *Science and the Secrets*, 5; C.f. Elaine Leong and Alisha Rankin, “Introduction” in *Secrets and Knowledge in Medicine and Science 1500-1800*, eds. Elaine Leong and Alisha Rankin (Farnham: Ashgate, 2011), especially p. 8.

appreciation and public awareness of natural philosophy and a growing recognition of the household as an epicentre of experimental activities.

As science advanced in the eighteenth century, a divide emerged between the credibility of public experimentation and private activities that coincided with the growing notion of ‘privacy’ in the household.<sup>15</sup> In the gender discourse of the historiography of science, historians have argued that there was a “fear of female intrusion” in science and, more broadly, a fear of unregulated public scientific knowledge.<sup>16</sup> Rather than being participants in science, women became the objects of studies on sexual differences.<sup>17</sup> This was, in part, due to the dichotomies and sexual metaphors imbedded within eighteenth-century concepts of nature, progress, and order.<sup>18</sup> These sexual characteristics portrayed women as having weak constitutions and, when combined with their social dependence on men, made women “unreliable truth tellers” with no credibility in the realm of institutional science.<sup>19</sup> In the privacy of the home, early modern medicine practiced by women was highly technical, contributing to abstract scientific theory despite theoretical sciences being impractical in the daily household routine.<sup>20</sup> By the eighteenth century, compiling recipe collections was a leisure pursuit that was highly suggestive of an interest in science and experiment. For upper-class and even middling-class women (and

---

<sup>15</sup> Amanda Vickery, *Behind Closed Doors: At Home in Georgian England* (New Haven: Yale University Press, 2009), 26.

<sup>16</sup> Londa Schiebinger, *The Mind Has No Sex?* (Cambridge, MA: Harvard University Press, 1989), 2.

<sup>17</sup> Schiebinger discusses these sexual differences in the study of female skeletons from 1730-90. Schiebinger, *The Mind Has No Sex?*, 189-213.

<sup>18</sup> Ludmilla Jordanova, *Sexual Visions. Images of Gender in Science and Medicine between the Eighteenth and Twentieth centuries* (Madison: University of Wisconsin Press, 1989), 24.

<sup>19</sup> As argued in, Steven Shapin, *A Social History of Truth: Civility and Science in Seventeenth-Century England* (Chicago: University of Chicago Press, 1994), 87.

<sup>20</sup> Lynette Hunter and Sarah Hutton, “Women, Science and Medicine: Introduction” in *Women, Science and Medicine 1500-1700: Mothers and Sisters of the Royal Society*, eds. Lynette Hunter and Sarah Hutton (Thrupp: Sutton Publishing Limited, 1997), 3.

sometimes men) recipe collecting and testing was “a harmless hobby, a curative for depression and a corrective to the evils rife in society” that contributed to advances in natural philosophy.<sup>21</sup>

Comparable to science, the transmission of medical knowledge occurred through a wide-spread, and often informal, network. The early modern exchange of materials and medical advice comprised what historians call the medical marketplace.<sup>22</sup> Medicaments, as with other commodities and luxuries, were associated with social hierarchies and the commodification of wealth.<sup>23</sup> As consumerism flourished, however, luxury goods became increasingly tied to the market and economic growth.<sup>24</sup> Mark Jenner and Patrick Wallis have stated that there is a “need for greater consideration of the nature of exchange and value of medicine” and that such an analysis will complicate the dynamics of the medical marketplace and the role of materials in

---

<sup>21</sup> Patricia Phillips, *The Scientific Lady: A Social History of Women's Scientific Interests 1520-1918* (London: Weidenfeld and Nicolson, 1990), x; Lynette Hunter, “Women and Domestic Medicine: Lady Experimenters, 1570-1620” in *Women, Science and Medicine 1500-1700: Mothers and Sisters of the Royal Society*, eds. Lynette Hunter and Sarah Hutton (Thrupp: Sutton Publishing Limited, 1997), 90.

<sup>22</sup> The term “medical marketplace” was coined by Harold Cook. Harold J. Cook, *The Decline of the Old Medical Regime in Stuart London* (Ithaca: Cornell University Press, 1986), 22. The concept of a medical marketplace has undergone much scrutiny and re-working by historians attempting to include a wider range of practitioners and participants in medical exchanges see: Mark S.R. Jenner and Patrick Wallis, “The Medical Marketplace” in *Medicine and the Market in England and its Colonies, c.1450-c.1850* eds. Mark S.R. Jenner and Patrick Wallis (New York: Palgrave Macmillan, 2007) pp. 1-23; Mary Fissell, *Patients, Power and the Poor in Eighteenth-century Bristol* (Bowling Green, Ohio: Bowling Green State University Press); Margaret Pelling, “Compromised by Gender: The Role of the Male Medical Practitioner in Early Modern England” in *The Task of Healing: Religion and Gender in England and the Netherlands, 1450-1800* eds. Hilary Marland and Margaret Pelling (Rotterdam: Erasmus Publishing, 1996) pp. 101-133; Margaret Pelling, *The Common Lot: Sickness, Medical Occupations and the Urban Poor in Early Modern England* essays by Margaret Pelling (London: Longman, 1998); Margaret Pelling, *Medical Conflicts in Early Modern London: Patronage, Physicians, and Irregular Practitioners 1550-1640* (Oxford: Clarendon Press, 2003); Dorothy Porter and Roy Porter, *Patient's Progress: Doctors and Doctoring in Eighteenth-century England* (Stanford: Stanford University Press, 1989); Roy Porter, “Lay Medical Knowledge in the Eighteenth Century: The Evidence of *The Gentlemen's Magazine*,” *Medical History* 29 (1985): 138-168; Roy Porter, *Doctor of Society: Thomas Beddoes and the Sick Trade in Late Enlightenment England* (London: Routledge, 1992); Roy Porter, *Disease, Medicine, and Society in England, 1550-1860* (Cambridge: Cambridge University Press, 1995); Roy Porter, *Quacks, Fakers, and Charlatans in Medicine* (Stroud: Tempus, 2003); Andrew Wear, *Knowledge & Practice in English Medicine, 1550-1680* (Cambridge: Cambridge University Press, 2000).

<sup>23</sup> Klein and Spary, “Introduction: Why Materials?”, 19.

<sup>24</sup> Maxine Berg, “New Commodities, Luxuries and their Consumers in Eighteenth-century England,” in *Consumer and Luxury: Consumer Culture in Europe 1650-1850*, eds. Maxine Berg and Helen Clifford (Manchester: Manchester University Press, 1999), 68.

medicine.<sup>25</sup> Medicine walked the line between necessity and luxury. In a society where hypochondria ran rampant, it is difficult to determine just how often medicine was necessary and when it was a luxury.<sup>26</sup> As a consumer object, medicine needs to be examined as symbolic of daily life and of family or group identities.<sup>27</sup> The purchase of printed recipe collections and household guides, equipment, and ingredients indicates that the ideal domestic medicine was an active part of the consumer economy. When examined in conjunction with luxury consumerism, recipe collections provide a sense of the potential rates of consumption in a household as well as detailing the diversity and quantity of tools and ingredients that were available, and how they were used and valued.

In the medical marketplace, knowledge was exchanged and donated across all social boundaries and institutional barriers.<sup>28</sup> Margaret Pelling argues that early modern medical practices were metaphorical icebergs, with domestic practitioners being the larger submerged mass supporting the tip (physicians).<sup>29</sup> In part, the prevalence of domestic medicine and the need for experimenting with remedies was due to a lack of trust in the medical marketplace. Distrust in physicians and apothecaries often resulted from conflicting advice. Moreover, medical advice via correspondence could be misinterpreted and, overall, there were few trusted institutional or ethical systems of regulation.<sup>30</sup> As Roy Porter has observed, England's unregulated medical marketplace allowed for quacks and domestic medicine to thrive alongside physicians and across

---

<sup>25</sup> Jenner and Wallis, "The Medical Marketplace", 3.

<sup>26</sup> On hypochondria see Porter, *Quacks*, 33.

<sup>27</sup> Berg, "New Commodities, Luxuries and their Consumers", 68.

<sup>28</sup> Leong, "Medical Recipe Collections", 197.

<sup>29</sup> Margaret Pelling, "Women of the Family? Speculations around Early Modern British Physicians," *Social History of Medicine* 8 no.3 (1995): 397.

<sup>30</sup> Patrick Wallis, "Consumption, Retailing and Medicine in Early Modern London," *Economic History Review* 61 no.1 (2008): 26-27.

social strata throughout the eighteenth century.<sup>31</sup> To compensate for this distrust, recipe collections often included multiple variations of remedies for the same ailment, giving domestic practitioners the benefit of being selective. A caregiver could tailor her remedies to her abilities, ingredient availability, and personal treatment preferences including the preferences those under her care. Having options made recipe collections an often more trustworthy route for medical care.

The medical marketplace is useful for thinking about domestic medicine in a broader context and we can situate both within the eighteenth-century economy. The family was the base economic unit of early modern society.<sup>32</sup> Craig Muldrew stresses that the economic marketplace was not just a physical space, but a dynamic set of relationships.<sup>33</sup> Eighteenth-century commerce, from the large scale merchant exchange to the neighbourhood grocers, ran on a system of trust, credit, and “moral language”.<sup>34</sup> This system of credit allowed people from a wider class range to participate in the consumption of medicine, and commodities in general.<sup>35</sup> Despite the growth of capitalism and rampant debt, “hospitality, neighbourliness, forbearance, and discretion” were central to the social operations within the economy at all class levels.<sup>36</sup> A consumer was not an independent economic agent.<sup>37</sup> Women were particularly involved in the management of credit and spending; in fact, shopping was often sexualized as “domesticated femininity”, the

---

<sup>31</sup> Roy Porter, *Disease, Medicine and Society in England, 1550-1860* Second Edition. (Cambridge: Cambridge University Press, 1995), 40.

<sup>32</sup> Susan Dwyer Amussen, *An Ordered Society: Gender and Class in Early Modern England* (Oxford: Basil Blackwell, 1988), 1.

<sup>33</sup> Craig Muldrew, “Interpreting the Market: the Ethics of Credit and Community Relations in early modern England,” in *Social History* 18 no. 2 (1993), 170.

<sup>34</sup> For a history of the merchants in eighteenth-century London see: Perry Gauci, *Emporium of the World: The Merchants of London 1660-1800* (London: Hambleton Continuum, 2007); For an explanation of “moral language” see Muldrew, “Interpreting the Market”, 177.

<sup>35</sup> Troy Bickman, “Eating the Empire: Intersections of Food, Cookery and Imperialism in Eighteenth-Century Britain,” *Past and Present* 198 (Feb. 2008), 77.

<sup>36</sup> Craig Muldrew, “From a ‘light cloak’ to an ‘iron cage’: Historical Changes in the Relation between Community and Individualism” in *Communities in early modern England* Eds. Shepard and Withington (Manchester: Manchester University Press), 164.

<sup>37</sup> Jenner and Wallis, “The Medical Marketplace”, 9.

quintessential female leisure pursuit.<sup>38</sup> Maintaining good credit was the mark of a successful housewife and private spending was hence a part of public sociability.<sup>39</sup>

The household, including the kitchen, was as much a domain of female authority as a space of patriarchal power.<sup>40</sup> The kitchen, according to Pennell, was a place where “female competencies were founded and realized”.<sup>41</sup> Elite women, in particular, had a variety of managerial duties in the home such as monitoring the servants and expenses, and furnishing and decorating the home with increasingly available luxury items.<sup>42</sup> Of course, there were also the endless hands-on tasks: cooking, cleaning, entertaining, raising children, and preserving the health of the household. Maintaining domestic health was especially important to social order, and medical treatises, like those of Nicholas Culpeper, were often published as preservers of the health of fellow country-men for “the good of the English Nation”.<sup>43</sup> Sickness could devastate household order. Lisa Smith argues that men’s ill health compromised both the well-being of familial dependents as well as men’s political aspirations, destabilizing social order.<sup>44</sup> A healthy household permitted economic stability and a hierarchical balance that mirrored the political and social order of the state.<sup>45</sup> Women and men who participated in making domestic medicine to

---

<sup>38</sup> Michael Roberts, “Afterword: Recovering a lost inheritance: the marital economy and its absence from the prehistory of Economics in Britain,” in *The Marital Economy in Scandinavia and Britain, 1400-1900*, eds. Maria Ågren and Amy Louise Erickson (Aldershot: Ashgate, 2005), 250; Wallis, “Consumption, Retailing and Medicine”, 28. The term “domesticated femininity” is used in, Amanda Vickery, *The Gentleman’s Daughter: Women’s Lives in Georgian England* (New Haven: Yale University Press), 3.

<sup>39</sup> Ingrid Tague, *Women of Quality: Accepting and Contesting Ideals of Femininity in England, 1690-1760* (Suffolk: The Boydell Press, 2002), 108.

<sup>40</sup> *Ibid.*, 97-98.

<sup>41</sup> Sara Pennell, “‘Pots and Pans History’: the Material Culture of the Kitchen in Early Modern England,” *Journal of Design History* 11 no. 3 (1998): 202.

<sup>42</sup> Tague, *Women of Quality*, 100; 106; 120.

<sup>43</sup> Nicholas Culpeper, *Pharmacopoeia Londinensis: or, the London dispensatory* (London, 1718), A2.

<sup>44</sup> Lisa Wynne Smith, “Reassessing the Role of the Family: Women’s Medical Care in Eighteenth-century England,” *Social History of Medicine* 16 no. 3: 331; Lisa Wynne Smith, “The Body Embarrassed? Rethinking the Leaky Male Body in Eighteenth-Century England and France,” *Gender & History* 23 (2011): 28.

<sup>45</sup> Amussen, *An Ordered Society*, 1-3.



care for their families or aiding the poor can potentially be viewed as important contributors to the maintenance of the overall health and stability of England.

As a case study, I use an eighteenth-century manuscript titled, “Elizabeth Jenner Her Book Anno Domini. 1706. For makeing of Waters and Syrups: and other Physical Remedies”.<sup>46</sup> This is the first focused study of Jenner’s manuscript and her collection is an important source for revealing the transition in the practice of recipe collecting between the seventeenth and eighteenth centuries. As an author, Jenner is reflective of the gender implications within the tradition of women’s writing and the tradition of domestic recipe collecting. Moreover, her collection focuses on medicinal recipes and is illustrative of the shift in dividing medical and culinary knowledge that took place in the late seventeenth century. Jenner’s collection is particularly interesting because she focused mainly on distillation recipes; this deliberate selectivity suggests a specialized interest. Her collection is small: ninety-six pages with 135 recipes and several blank pages at the end of the collection. With a complete table of contents and recipes organized loosely by ailments, this text is useful for deconstructing recipes to examine Jenner’s collecting strategies and authorship style because it is organized and accessible to the reader. My analysis also includes a number of popular print collections that existed around the time Jenner wrote her manuscript. Recipe collections evolved throughout the eighteenth century with advances in medicine, experimental techniques, and new ingredients. It is important to compare the manuscript with a sample of published collections to identify the similarities and differences in recipe styles, advice, equipment, and ingredients. This comparison will bring out

---

<sup>46</sup> Wellcome, WMS 3029. Elizabeth Jenner, “Elizabeth Jenner Her Book Anno Domini 1706. For makeing of Waters and Syrups: and other Physical Remedies.” In, *Women and medicine [microform]: remedy books, 1533-1865, from the Wellcome Library for the History and Understanding of Medicine*, ed. Sara Pennell (London, 2004). The manuscript is grouped with the “Jenner family and associated individuals” collection, which focuses on the materials of notable physician Edward Jenner, but Elizabeth Jenner’s relationship to the other family members is unclear. Wellcome Library record details.  
<http://archives.wellcome.ac.uk/DServe/dserve.exe?dsqIni=Dserve.ini&dsqApp=Archive&dsqDb=Catalog&dsqCmd=Show.tcl&dsqSearch=%28RefNo==%27MS1180%27%29>

the scope of eighteenth-century England's preoccupation with scientific knowledge and its transferability across writing media. Additionally, because Jenner's manuscript specialized in distillation, comparing it with popular printed collections will help to determine the prominence of distillation as a household hobby; an important consideration given the decline in charitable domestic medicine with the rise in purchased medical care at the beginning of the eighteenth century.

Printed collections provide wider literary background for understanding the role of recipe collections in domestic practices, the medical marketplace, and their underlying connection to economics and empire. Outlining the other primary sources examined in this thesis, I use the 1698 edition of the printed collection *The Queen's Closet Opened* as a case study of authorship, language, and attributed recipes in comparison to Jenner's manuscript.<sup>47</sup> The printed household guide, Eliza Smith's *The Compleat Housewife* (1727), is used in a comparison of equipment and techniques to Jenner's.<sup>48</sup> I use three printed collections, Gervase Markham's *The English Housewife* (1631), Thomas Newington's *A Butler's Recipe Book* (1719), and Ambrose Cooper's *The Complete Distiller* (1757), to offer a gendered look at the importance of distilling medicine as a household practice and to trace chronologically the shift of domestic distillation from a charitable requirement to a complex scientific vocation.<sup>49</sup> Additionally, I analyze the first volume of Sir Robert Boyle's *Medicinal Experiments or a Collection of Choice Remedies* (1703)

---

<sup>47</sup> W.M. *The Queen's closet opened being incomparable secrets in physick, chyrurgery, preserving, candying, and cookery*, tenth edition (London, 1698) *Early English Books Online*.

<sup>48</sup> E. (Eliza) Smith, *The Compleat Housewife, or, Accomplish'd Gentlewoman's Companion* (London: Literary Services and Production, 1968).

<sup>49</sup> Gervase Markham, *The English Housewife*, ed. by Michael R. Best (Kingston: McGill-Queen's University Press, 1986); Thomas Newington, *A Butler's Recipe Book, 1719*, ed. Philip James; with wood-engravings by Reynolds Stone; with an introduction by Ambrose Heath (Cambridge: Cambridge University Press, 1935); A. (Ambrose) Cooper, *The complete distiller* (London, 1757).

alongside Jenner's manuscript to reveal how purchased apothecary ingredients were increasingly present in recipe collections during the eighteenth century.<sup>50</sup>

This study uses a qualitative and quantitative methodological approach. I adopted Jennifer Stine's approach for seventeenth-century collections, which deconstructed recipes to examine and quantify efficacy statements and ingredients, and Lisa Smith's method of categorizing ingredients in eighteenth-century collections. First, I examined each collection as a material text and read each recipe to determine its content, length, and fit within the collection. Second, I broke down recipes to discern their language structures and materials for an analysis of scientific practices and consumption rates.<sup>51</sup> My qualitative analysis was mostly framed by gender and class. Gender is a construct defined as spectrum of masculine and feminine relationships and it is an important framework for determining the relationship between medicine and science.<sup>52</sup> Gender is discussed to contextualize recipe collections beyond women's writing and household duties and to emphasize male and female scientific and medical practice within the home. Similarly, class is used as a framework to highlight the exchange of knowledge in domestic medicine. Class is a relationship of variable social categories and structures that unifies experiences and consciousness.<sup>53</sup> I consider class to determine who had the means for experimenting with medicine. It should be stressed, however, that this study looks primarily at the upper and middling classes. Recipe collections were used and created by the literate and those with expendable incomes, access to materials, and, to some extent, patronage connections. Quantitative analysis of the recipes is an effective way of conveying the scope and variety of specific words, equipment, and ingredients. Databases were created using Microsoft Access for

---

<sup>50</sup> Sir Robert Boyle. *Medicinal experiments: or, a collection of choice and safe remedies...* The fourth edition: enlarged with a supplement (London, 1703).

<sup>51</sup> This approach was adopted from Smith, "Women's Health Care", chapter 2.

<sup>52</sup> Ludmilla Jordanova, "Gender and the Historiography of Science," *British Journal for the History of Science* 26 (1993): 476; 482.

<sup>53</sup> E.P. Thompson, *The Making of the English Working Class* (London: Victor Gollancz Ltd., 1980), 10.

all three chapters and they contain raw counts, percentages, and descriptions of efficacy statements, equipment, techniques, and ingredients. Data were organized by frequency, and for ingredients, in alphabetical order as well. In each chapter's methodology section, further detail is given for individual analyses.

The first chapter of this thesis considers authorship as an important facet of recipe collections. Authoring collections was a way for male and female experimenters to gain credibility; writing about domestic activities allowed practitioners to express themselves and show their medical and scientific expertise. Contributor citations, annotations, and statements of efficacy were all elements of recipe collections that were used to establish trust and credibility. I argue that empirical language and trust criteria were fundamental to recipe collections and that these aspects classify collections as scientific records that highlight the testing of medical knowledge in the home. Trust was an important social construct in the eighteenth century and I use it as a framework throughout my thesis. Trust is explored in the first chapter with regards to compiling manuscript collections and the so called 'crisis' of the print marketplace.

The second chapter investigates equipment and techniques used in recipe collections, focusing on distillation recipes. The use of kitchen paraphernalia in experimenting with medicine, as well as food preparation, signifies their value as multi-purpose commodities increasingly available to a wider class range. I contend in chapter two that analysing what equipment was likely available in eighteenth-century households emphasizes the use of collections as sources of material history and positions these texts within the consumer revolution. Using print collections as context for Jenner's manuscript, I trace the shifting function of distillation through the eighteenth century, examining gendered authorship and the

role of female readership. Moreover, I treat the kitchen as a scientific space, allowing for a reconsideration of domestic practitioners and recipe collections in the history of science.

The final chapter examines the material exchanges within the medical marketplace, concentrating on where ingredients came from and how they were consumed. I argue that tracing where ingredients were purchased, and what ingredients were used in medicine, reveals the close relationship between science, medicine, and the marketplace, and an underlying context of consumerism and early imperialism. *Materia medica* used in domestic medicine position the home within a socio-economic framework; everyday commodities link the domestic activities to trade monopolies and colonial production, while exotics draw attention to the efforts of botanical exploration. Recipe collections such as Jenner's reflect the rise in consumerism and suggest the wider significance of botany and chemical distillation as popular elite pastimes.

Together, these chapters attempt to connect the often disparate histories of science, medicine, and consumerism. Focusing on eighteenth-century collections contributes to the history of recipe collections by recognizing that there was a maintained interest in recipe collecting and that these texts evolved and diversified alongside cultural trends. Framing this study in gender and class constructs draws together conversations about authorship, ownership of consumer goods, knowledge of distillation, and familiarity with *materia medica*. These themes trace the process of making medicine, from the initial stage of selecting credible recipes to having the necessary equipment and ingredients needed to experiment with a remedy. Moreover, the often told narrative of women's exclusion from the history of science was arguably part of a larger oversight of the household as an experimental space. The household was an active part of the medical marketplace and, subsequently, England's economy. Hence, sources like recipe collections have potential for elucidating the household's involvement in socio-economic,

intellectual, and imperial development by documenting consumerism and scientific experimentation during the eighteenth century.

Chapter One  
Authorship, Empirical Writing, and Trust in Eighteenth-Century Recipe Collections

Credibility and trust were essential in compiling recipe collections. Evaluating which recipes were trusted and worthy of inclusion was critical with medicinal collections: the choice of remedy could make the difference between life and death. One way that a compiler deemed recipes credible was by trying them out. Another way was using authorship and contributor citations as testimonials that the remedy worked. Likewise, empirical rhetoric conveying evidence of experimentation was fundamental to recipe collecting and it was used to convey authority and the credibility of a knowledge claim.<sup>1</sup> This chapter examines the ways in which statements of efficacy and contributor citations indicated the quality and trustworthiness of a recipe. I argue that the strategies used by recipe compilers to obtain accurate and effective medical advice were similar to the criteria scientific societies operated under to maintain credible and gentlemanly reputations. Similar writing styles and trust criteria are thus two ways in which recipe collections can be seen as sources of science. I examine how recipe testing and collecting can be considered as experimentation, not to suggest that domestic recipe collections emerged from scientific societies, but to emphasize that credibility and reputation were facets of eighteenth-century culture. Trust was integral in the pursuit of natural knowledge at all levels.

Recipe collections, along with diaries, poetry, and memoirs, have been studied as types of women's virtuous writing. Elaine Hobby uses the term "virtue of necessity" to describe how

---

<sup>1</sup> Empirical thought was influenced by Bacon's programme for the Royal Society. Subsequently, empiricism gained popularity in the seventeenth and eighteenth centuries through the philosophical writings of Hume and Locke, eventually becoming the foundation for natural and experimental philosophy. In medicine, the term 'empiric' carried a negative connotation for physicians as it suggested an unlicensed medical practitioner – lay medicine was inherently empirical. See Craig Ashley Hansen, *The English Virtuoso: Art, Medicine, and Antiquarianism in the Age of Empiricism* (Chicago: The University of Chicago Press, 2009), 3; 9. For an explanation of the history of a recipe's empirical structure see Jennifer K. Stine, "Opening Closets: The Discovery of Household Medicine in Early Modern England" (Ph. D. dissertation, Stanford University, 1996), 40; 180.

women gained autonomy by writing about their lives and household experiences.<sup>2</sup> By the eighteenth century, compiling and experimenting with recipes were, consequently, private women's pursuits that were also acceptably 'public' in print. This was not the case in previous centuries where silence was a feminine ideal and a mastery of rhetoric was a male rite.<sup>3</sup> Authoring printed recipe collections also gave men the opportunity to engage with 'feminine' domestic content by asserting their authority as experts on household advice.<sup>4</sup> For many recipe collectors, according to Catherine Field, manuscript recipe collections were "an alternate window into the expression of the early modern self", allowing compilers to discover their identities.<sup>5</sup> Into the eighteenth century, manuscript recipe collections continued to be an important genre of women's writing and symbols for wealth, authority, and expertise. However, eighteenth-century collections differ from their precursors in that they go beyond providing household advice and consciously engage with natural philosophy. Both male and female recipe collectors appear to have self-identified as experimenters in natural knowledge.

The relationship between authorship and ownership of a recipe collection is a problem with which historians have often dealt. Field equates authorship and ownership because recipes were selectively compiled and written down by the individual who owned the collection, therefore creating a unique authored collection.<sup>6</sup> Elaine Leong remarks, however, that this need to name a specific author "seems to de-emphasize the possible role played by family members

---

<sup>2</sup> Elaine Hobby, *Virtue of Necessity: English Women's Writing 1649-88* (London: Virago Press, 1988), 8.

<sup>3</sup> Wendy Wall, *The Imprint of Gender: Authorship and Publication in the English Renaissance* (Ithaca: Cornell University Press, 1993), 280. Deborah Harkness suggests that a woman's household projects or 'busy work' emphasized her husband's prosperity and, therefore, a wide range of domestic leisure activities were considered acceptable for an accomplished housewife. Deborah Harkness, "Managing an Experimental Household: The Deeds of Mortlake and the Practice of Natural Philosophy," *Isis* 88 no. 2 (June, 1997), 249.

<sup>4</sup> Suzanne Hull, *Women According to Men: The World of Tudor-Stuart Women* (Walnut Creek: AltaMira Press, 1996).

<sup>5</sup> Catherine Field, "'Many hands hands': Writing the Self in Early Modern Women's Receipt Books" in *Genre and Women's Life Writing in Early Modern England*, eds. Michelle Dowd and Julie Eckerle (Aldershot: Ashgate, 2007), 50.

<sup>6</sup> *Ibid.*, 55.



and subsequent generation of compilers”.<sup>7</sup> Determining authorship or compilership is further complicated as recipes were often copied from other printed and manuscript collections.<sup>8</sup> Besides copying, compilers could create new recipes, modify recipes, annotate, and collaborate with other compilers, as with family collections.<sup>9</sup> Compilers could gain credibility by compiling effective recipes, and their testimonials of a recipe’s efficacy could determine its continuous inclusion in collections. It was the combination of a compiler’s credibility and the recipe’s “currency” or value that expressed trust.<sup>10</sup> Attributions to family members, physicians, and acquaintances were common and part of a valuable system of trust. Each cited recipe served as a link between compiler and donor and the citation served as a mark of authority and a future reference, somewhat like our modern footnotes and annotations.<sup>11</sup>

Manuscript recipe collections represent a broad social network of trusted medical experience and knowledge.<sup>12</sup> Unlike printed sources, which cited notable physicians or aristocrats as a marketing ploy, manuscript collections were created and passed down through families and were part of a thriving personalized exchange of medical knowledge between classes and genders. This open exchange of knowledge within domestic medicine and the larger medical marketplace was a concern for physicians who were attempting to monopolize and institutionalize medicine.<sup>13</sup> Physicians considered themselves to be gentlemen and tried to isolate themselves from the “other” irregular practitioners via specific qualities. These qualities can be

---

<sup>7</sup> Elaine Leong, “Medical Recipe Collections in Seventeenth-century England: Knowledge, Text and Gender” (D. Phil. thesis, University of Oxford, 2005), 173.

<sup>8</sup> Leong, “Medical Recipe Collections”, 175.

<sup>9</sup> Ibid., 181.

<sup>10</sup> Elaine Leong and Sara Pennell, “Recipe Collections and the Currency of Medical Knowledge in the Early Modern Marketplace,” in *Medicine and the Market in England and its Colonies, c.1450-c.1850*, eds. Mark S.R. Jenner and Patrick Wallis (New York: Palgrave Macmillan, 2007), 138.

<sup>11</sup> Leong, “Medical Recipe Collections”, 225.

<sup>12</sup> Stine, “Opening Closets”, 188.

<sup>13</sup> Margaret Pelling, *Medical Conflicts in Early Modern London: Patronage, Physicians, and Irregular Practitioners 1550-1640* (Oxford: Clarendon Press, 2003), 97.

loosely categorized as education, wealth, time, authority, and reputation.<sup>14</sup> Physicians, however, were certainly not the only individuals who had trusted medical reputations. Sufferers considered medical practitioners trustworthy if their medical knowledge proved effective in curing, or at least comforting.

In science, authority and credibility were gained through experience with experiments commissioned by institutions like the Royal Society. The Royal Society was the main scientific institution in eighteenth-century England and its methods of exchanging and preserving knowledge operated under criteria also used by domestic experimenters in medical recipes. Steven Shapin's *A Social History of Truth* examines the connections between gentlemen, truth-telling, and science in seventeenth-century England.<sup>15</sup> Shapin focuses on the use of civility and gentlemanly trust in scientific endeavours by Royal Society members, particularly Robert Boyle. Shapin's framework for analyzing truth-telling and authoritative language in science can also provide an analytical framework for the analogous language of recipe collections.

Shapin develops a framework of "maxims", or criteria, for ascertaining trust and credibility in science used by the Royal Society which he credits to seventeenth-century literature. These seven maxims, applied as a framework for studying domestic recipe collections, reveal the broader social context of scientific practices in eighteenth-century England. Shapin states that the information must be believable (maxim i) and that it needs to be in agreement with other findings and supported by other testimony (maxims ii and iii). Testimony needs to be immediate in that it should be experienced first-hand (maxim iv), and experience needs to come from a trusted authority (maxim v). Finally, the credibility of an experimenter is measured by his

---

<sup>14</sup> H.R. French, *The Middle Sort of People in Provincial England 1600-1750* (Oxford: Oxford University Press, 2007), 216.

<sup>15</sup> Steven Shapin, *A Social History of Truth: Civility and Science in Seventeenth-Century England* (Chicago: University of Chicago Press, 1994).

disinterest in fame or profit. A sincere interest and aptitude in science are credible qualities in a practitioner (maxims vi and vii).<sup>16</sup>

Trusted medical advice was defined by what ‘worked’, not as Shapin argues by its relation to institutional medicine. Authority came from an established reputation of successful experience and reliable recommendation.<sup>17</sup> Leong and Pennell claim that Shapin trivialized domestic medicine and recipe collections by labelling them “informal” and unregulated “data retrieval”, suggesting that a need for regulating trust and credibility did not exist in recipe collecting.<sup>18</sup> Leong also suggests Shapin’s argument linking authority to social standing overlooks published recipe collections, such as that of Hannah Wolley, a lower class woman who successfully published recipe collections in the late seventeenth century. Wolley’s success in publishing suggests that one did not have to be a gentleman to be a credible authority in medical advice.<sup>19</sup> Women and men utilized Shapin’s maxims in a domestic context to establish their autonomy and personal authority. In fact, Shapin’s case study of Robert Boyle demonstrates that gentlemanly trust in science could be applicable to domestic medicine, as Boyle collected recipes. Trust criteria in recipe collections had a similar foundation to the one Shapin argues was confined to gentlemen. For example, Shapin’s maxims originated from courtesy literature, guides on proper social behaviour, which was widely read by educated people in both the upper and middle classes.<sup>20</sup> Courtesy literature, and popular printed literature in general, used language laden with “notions of gentility” that H.R. French argues allowed society to convey elite

---

<sup>16</sup> Shapin, *A Social History of Truth*, 212.

<sup>17</sup> Stine, “Opening Closets”, v.

<sup>18</sup> Leong and Pennell, “Recipe Collections and the Currency of Medical Knowledge”, 137.

<sup>19</sup> Leong, “Medical Recipe Collections”, 54-56.

<sup>20</sup> Ingrid Tague observes that courtesy literature was often gender neutral and it promoted morality, honour, and modesty. Ingrid Tague, *Women of Quality: Accepting and Contesting Ideals of Femininity in England, 1690-1760* (Suffolk: The Boydell Press, 2002), 26.

authority in everyday situations, earning credible reputations without actually being gentry.<sup>21</sup>

Thus, social norms found in courtesy literature were the basis for trust criteria in scientific enterprise across gender and class boundaries and we can examine Jenner's manuscript for evidence of these criteria used in domestic medicine.

As a point of comparison, I examine the tenth edition of W.M.'s *The Queen's Closet Opened* (1698) alongside Jenner's manuscript.<sup>22</sup> It was a popular collection of medicinal and culinary recipes which was reprinted seventeen times from 1654-1713 and first published at the time of Queen Henrietta Maria's exile.<sup>23</sup> In all editions from 1658-1698, the introduction boasted that it is a work of "Incomparable Secrets" that were "Presented to the Queen by the most experienc'd persons of the times".<sup>24</sup> In most of the seventeen editions, the introduction remained identical but tables were added and recipes were modified. Although this may not have been the Queen's collection, her notoriety was used pseudonymously to market the collection. In general, printed collections had far fewer citations than manuscript collections. As shown in Leong's research, *The Queen's Closet Opened* was unique in its high percentage of author-cited recipes (eighteen percent), whereas other published recipe collections had only five percent cited recipes.<sup>25</sup> Claiming that recipes were effective enough for nobility to use was a successful marketing strategy for *The Queen's Closet Opened*. This collection is useful for examining trust and authorship in print because of its comprehensive list of contributors. Citing contributors was one method of indicating a recipe's efficacy because readers easily recognized the names of

---

<sup>21</sup> French, *The Middle Sort*, 258.

<sup>22</sup> W.M. *The Queen's closet opened being incomparable secrets in physick, chyrurgery, preserving, candying, and cookery*, tenth edition (London, 1698).

<sup>23</sup> Jayne Archer argues that W.M. was actually Walter Montagu who was a loyal courtier of the Queen and "served as an intermediary between the Queen, King Charles, Marie de Medici and the Royalists in England." Cited from Leong, "Medical Recipe Collections", 82.

<sup>24</sup> W.M., *The Queen's Closet*, preface.

<sup>25</sup> Leong, "Medical Recipe Collections", 213.

notable physicians and aristocrats, making the collection more marketable by establishing trust.<sup>26</sup>

A quantitative analysis of the contributor citations and the language used to convey authority and efficacy in recipes reveals the systems of trust used in domestic medicine. I analyzed Jenner's 135 recipes and the 332 recipes comprising the medical section of *The Queen's Closet Opened* for statements of efficacy; these included any words that indicated how well the recipe worked.<sup>27</sup> Efficacy words appearing more than once in a recipe, but in a different context, were counted as separate statements.

#### Trust Constructs: Language and Authorship in Jenner's Manuscript

Recipe collections used an authoritative and imperative structure to convey the trustworthiness of the recipes.<sup>28</sup> This structure was present in medieval collections and, as part of the tradition of recipe collecting, evolved in seventeenth and eighteenth-century collections to maintain authority, credibility, and precision in instruction within an expanding medical marketplace. Using the imperative mood, command words such as "take" and "let" told the reader exactly how to create the recipe and administer a remedy, much like our modern prescriptions. Jenner wrote in this style and most of her recipes had an "Rx" recipe symbol, showing her use of Latin and academic notation. Moreover, many of Jenner's collections used Latinate ingredient names. The use of Latin in manuscript collections indicates that recipes were likely acquired from physicians, apothecaries, or other educated individuals, and copied into the collections, illustrating the dispersal of medical information within the medical marketplace.

Seventeenth and eighteenth-century manuscript recipe collections often used a system of notation consisting of marginal annotations, crosses, and other marks to indicate recipe testing or

---

<sup>26</sup> For a discussion of the political implications of attributions in *The Queen's Closet Opened* see: Laura Lunger Knoppers, "Opening the Queen's Closet: Henrietta Maria, Elizabeth Cromwell, and the Politics of Cookery," *Renaissance Quarterly* 60 (2007): 464-499.

<sup>27</sup> The medical section of *The Queen's Closet Opened* (1698) is 163 pages.

<sup>28</sup> Lisa Wynne Smith, "Women's Health Care in England and France (1650--1775)" (Ph. D. thesis, University of Essex, 2002), 52.

use and are evidence of experimentation.<sup>29</sup> Jenner had few indications of use and only one recipe had an ingredient crossed-out, suggesting that her collection was a “neat” copy, rather than a utility collection or experiment notebook.<sup>30</sup> A “neat” copy indicates that Jenner either approved her recipes or did not test them as she does not use annotations to mark that they need further modification. Fellows of the Royal Society also used “neat” and draft copies. Inscriptions in experiment workbooks indicated ideas and tests in progress, whereas no annotations in published reports suggested a finality and assurance in the research.<sup>31</sup> I use this comparison, not to show the similarities of domestic medicine to the work of the Royal Society, but to demonstrate the extent of the spread of scientific culture during the eighteenth century. Finally, Jenner had an accurately ordered table of contents and her writing was clear and concise, except the last few recipes – “Electuary for ye Cholick”, “Stone Drapt [Draft]”, “To make a daft [sic] Elixer”, “Yellow Jaudice” and “A Receipt for Ink” – which were not listed in the table of contents and were written messily. Jenner’s careful writing suggests that she was interested in collecting recipes and that she cared about the presentation of her collection and presenting it as efficacious. Finally, Jenner indicates ownership and authorship of the collection in the title “Elizabeth Jenner Her Book”, which was common in recipe collections, and with initials after one recipe and the phrase “my way” in several recipes.

Statements of efficacy also characterized the importance of language used in early modern recipe collections to inspire trust. They were key words or phrases in a recipe that were used to “inspire a just confidence” in the curing abilities of that recipe (*maxim vi*).<sup>32</sup>

Significantly, forty percent of Jenner’s recipes included statements of efficacy. These statements

---

<sup>29</sup> Stine, “Opening Closets”, 43.

<sup>30</sup> Leong, “Medical Recipe Collections”, 149.

<sup>31</sup> David Gooding, Trevor Pinch and Simon Schaffer, “Introduction: some uses of experiment” in *The Uses of Experiment: Studies in the Natural Sciences*, eds. David Gooding, Trevor Pinch and Simon Schaffer (Cambridge: Cambridge University Press, 1989), 5.

<sup>32</sup> Shapin, *Truth*, 212.

may have been useful for readers of Jenner's recipes, or served as reminders for Jenner herself as to which recipe worked best. Statements were found both in recipe titles and at the end of the recipes. They were usually included with information on what ailments the remedy was useful for and advice on administration. Examples of such statements are in Jenner's recipe for "The Snail Water ye 1st", where Jenner wrote "its very Good for Heatick [headache]: fevers & to preserve ye lungs in most diseases & Restors in consumption".<sup>33</sup> In "Dr. Walkers Receipt for A Consumption", Jenner noted that "He said it did ye greatest Cure he ever saw, it Cured one whose teeth might be bold thro his cheek."<sup>34</sup> Also, in her recipe "For ye megrims [migraines] in ye Head" Jenner claimed, "There is nothing better yn peacock dung and White wine being stired together."<sup>35</sup> These examples show how Jenner used statements of efficacy like "very good", "cure", and "nothing better" to inspire confidence in the effectiveness of her recipes. There were seventy-four recipes (fifty-five percent) that did not have any evidence of efficacy testimonials (neither statements nor contributor citations). Of these recipes, twenty percent were variations on previous recipes entitled "another" or "for the same" remedy. These recipes were often written in short-hand and included only small changes, making efficacy statements less important.

Figure 1.1 shows that, in Jenner's manuscript, twenty-six of her titles (nineteen percent) contained one or more efficacy statements. Jenner may have added efficacy statements to some recipe titles to reflect her approval, particularly when in-text indication of effectiveness was limited. This is significant because Jenner chose to accentuate which recipes were the most efficacious. These select titles, which are also listed in the table of contents, likely convey Jenner's favoured recipes, or those that were favoured by a contributor. For Jenner's most often used statements, approximately thirty-one percent of the titles that did include statements of

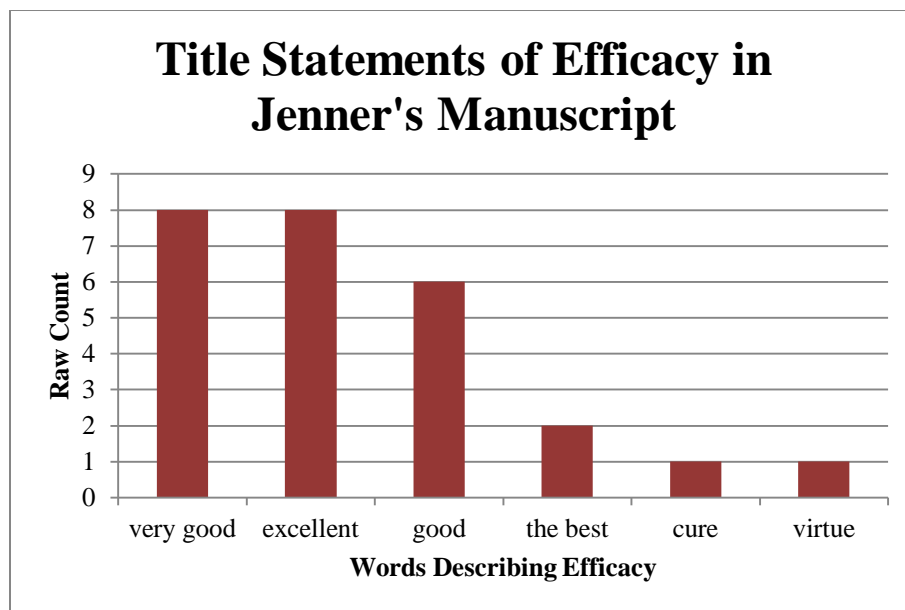
---

<sup>33</sup> Wellcome, WMS 3039, f. 11.

<sup>34</sup> Ibid., f. 22.

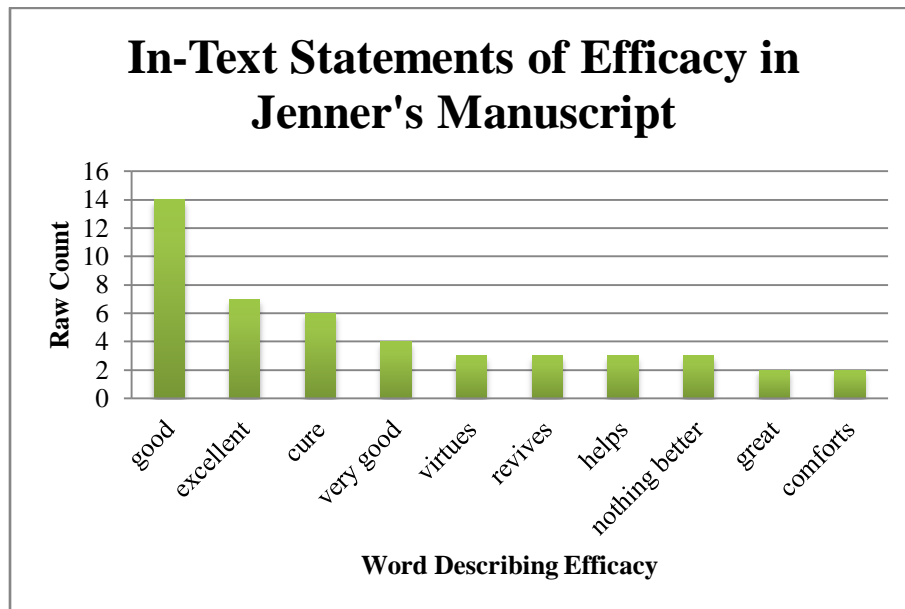
<sup>35</sup> Wellcome, WMS 3039, f.38.

efficacy used “very good”, thirty-one percent used “excellent”, twenty-three percent used “good”, eight percent used “the best”, and four percent used both “virtue” and “cure”. I distinguish between “very good” and “good” because the use of a modifier like “very” in an efficacy statement shows the magnitude of effectiveness. Moreover the statement “good for” could indicate that the recipe was designed for a particular ailment, but this still suggests the recipe’s usefulness. The choice of efficacy words may have been deliberate to stress that one recipe proved more effective than another. More likely, however, these words could have used synonymously as part of a genre of authoritative writing; it was an inclusion of any efficacy statement that marked credibility.



**Figure 1.1 Title Statements of Efficacy in Jenner's Manuscript**





**Figure 1.2 In-Text Statements of Efficacy in Jenner's Manuscript**

In Jenner's collection, twenty-eight percent of her recipes had in-text statements of efficacy. In total, there were fifty-eight statements; some recipes included more than one (Figure 1.2). These words reassured a reader of the remedy's qualities and sometimes indicated that a contributor experienced success in its use. In-text efficacy statements differed from those in titles because they were often associated with a description of the recipe's virtues. Efficacy statements were mostly found in Jenner's longer and more complex recipes and perhaps she chose to omit virtue descriptions when copying some recipes in shorthand. The ten most frequently used words were: good, excellent, cure, very good, virtues, revives, helps, nothing better, great, and comforts. The most commonly used words were "good" at twenty-four percent of recipes that included in-text statements, "excellent" was used in twelve-percent, and "cure" was used in six-percent of the recipes. There were several statements which appeared infrequently such as: cheers, success, restoreth, and admirable. Combined, these "other" statements of efficacy made up nineteen percent of the counts. Despite the variation in form and placement of efficacy

statements, these words are important because they reflect the language that Jenner used to convey trust in her recipes and the credibility of her contributors, as well as herself.

Cited recipes, alongside recipes for the same ailment authored by Jenner, accentuate how trust was woven into her recipes, meeting several of Shapin's maxims for credibility. Similar recipes for the same illness written side-by-side showed "multiple and consistent testimony" (maxims ii and iii). Providing alternative variations to remedies also allowed compilers more freedom to be selective with ingredients they had on hand, or liked better. Jenner provided her own versions of recipes, indicating that she had first-hand experience in the preparation of the recipe (maxim iv). As well, some of Jenner's recipes were from noted physicians who were knowledgeable sources (maxim v).<sup>36</sup> Contributions from physicians were common in collections indicating that compilers corresponded with physicians for medical advice, or took recipes from a published source.<sup>37</sup> This is significant because it traces the transmission of medical knowledge between the institutional and domestic spheres and between genders, whether verbally or through writing. Most of the contributors in Jenner's manuscript were cited alongside the recipe titles in the table of contents, and some were included in-text. There were fifteen contributor citations in total, seven of which were found in recipes that did not use statements of efficacy. In the case of those seven recipes, contributor citations may have been sufficient testimony for the usefulness of the recipe. Many of the recipes attributed to named individuals were from physicians. The contributors include: Dr. Nath, Dr. Burgess, Dr. Thomas, Dr. Walker, Dr. Buttler, Dr. Clos..., Dr. Willis, and a Dr. Turner. Most of these doctors are listed in Munk's Roll, the Royal College of Physicians' biographical obituary list, and were thus accredited medical practitioners.<sup>38</sup>

---

<sup>36</sup> Shapin, *Truth*, 212.

<sup>37</sup> Leong and Pennell, "Recipe Collections", 139.

<sup>38</sup> Royal College of Physicians, Munk's Roll, <http://munksroll.rcplondon.ac.uk/Biography/VolumeI>.

Several contributors are also listed as Fellows of the Royal Society, including Dr. Thomas Willis (1621-1675) who was a founding member and a physician noted for his work in neurology.<sup>39</sup>

The most interesting case of authorship is found in “Dr Willis Syrup of Sulp” – a syrup or tincture of sulphur for coughs – where it was specified “Communicated to Walter Needha[m]: & by him to my Lady St John And my Lady St. John to me.”<sup>40</sup> The recipe title reveals the transmission of the recipe from Dr. Willis to Walter Needha[m] to Lady St. John and then to Jenner. This recipe had detailed instructions about procedure, and it differs significantly from Willis’s version titled “To Throw out the Hydropick Serum by Urine” found in his 1701 posthumous published collection, *Dr. Willis’s Receipts for the Cure of all Distempers*. Willis’s version of the recipe is nine lines and began by stating, “Take of white Tartar calcin’d with Nitre, and then melted in a Crucible, till it becomes blew [sic], three ounces; small Spirit of Wine, a pound and a half; Water of Snails and of Earthworms of each for ounces.”<sup>41</sup> Jenner’s version, on the other hand, is seventeen lines and read:

Rx Tartar And Nitre of each half A Pound & Burn it in A Crucible tel it Comes to ye Colour you desire; yn take it out of ye fire & brake ye Crucible take out ye matter & Beat it to Powder of wch Powder Put 4 ounces two to quarts of Sack, Put ym into A Strong Bottle & Past ye Bottom of yr Kittle wth Clay & Set yr Bottle in & fill your kittle wth water let it Boyle 24 Hours Softly<sup>42</sup>

This difference in writing style indicates that Jenner did not copy it directly from Willis’s printed collection and that the original recipe was modified either by Willis as a prescription, or possibly through its transmission to Needha[m] and St. John. The addition of thorough instructions with specific equipment suggests, however, that this recipe was modified through use. Lady St. John’s

---

<sup>39</sup> The Royal Society, The Sackler Archive Database of Royal Society Fellowship, <http://www2.royalsociety.org/Dserve/dserve.exe?dsqIni=Dserve.ini&dsqApp=Archive&dsqCmd=Show.tcl&dsqDb=Persons&dsqPos=3&dsqSearch=%28Surname%3D%27willis%27%29>.

<sup>40</sup> Many of Willis’s similar sulphur tinctures were categorized as remedies for coughs and, therefore, I make the assumption that this particular recipe was also used to relieve coughs; Wellcome, WMS 3039, f. 29.

<sup>41</sup> Thomas Willis, *Dr. Willis’s receipts for the cure of all distempers* (London, 1701).

<sup>42</sup> Wellcome, WMS 3039, f. 29.

cookery recipes were included in other manuscript collections pointing to her as an experienced recipe collector.<sup>43</sup> Thus, it is possible that St. John modified Willis's recipe before giving it to Jenner. Regardless of who modified the recipe, it is an example of the continued transmission and modification of medicinal advice from the seventeenth century into the eighteenth century and it demonstrates the maintained use of recipe collections by members of differing class and gender groups.

The recipe following "Dr Willis Syrup of Sulp" in Jenner's collection was "Dr W His Lozenges for a Cough". This recipe may have been taken directly from Willis's work because it is identical in structure and wording to a recipe found in *Dr. Willis's Receipts for the Cure of all Distempers*. As a comparison, Jenner's copy of the recipe read, "Rx of Species Diaireos, of the Lungs of A fox of each 3 drams flower of Brimstone Powder of elicampane of each one dram of ye whitest Benzoin one dram make ym in fine powder" while in Willis's work it stated, "Take Species Diaireos, and of Fox Lungs, three drams; Flowers of Sulphur, Elecampane Roots, of each half a dram; White Benzoin, a dram. Make a fine Powder."<sup>44</sup> Moreover, the recipe following Willis's lozenge recipe was "To make Lozenges for a Cough My way", one of two recipes in the collection that used the words "my way".<sup>45</sup> In Willis's book, he indicated that his lozenge recipe was "not yet confirm'd" which described experimental uncertainty.<sup>46</sup> This may have been why Jenner experimented with the lozenge recipe and modified it. She did not have Willis' guarantee that the recipe was effective. As the above examples reveal, Jenner emphasized authority and credibility by providing multiple tests of a recipe (maxim ii), providing first-hand experience (maxim iv), and by giving a version of Willis's recipe, who was an already trusted

---

<sup>43</sup> Wellcome, WMS. 7851. *English Recipe Book, late 17<sup>th</sup>-early 19<sup>th</sup> century*, ff.10, 32, 55v.

<sup>44</sup> Wellcome, WMS 3039, f. 29; Willis, *Dr. Willis's receipts for the cure of all distempers*, 101.

<sup>45</sup> Wellcome, WMS 3039, f. 30.

<sup>46</sup> Willis, *Dr. Willis's receipts for the cure of all distempers*, 101.

authority (maxim v).<sup>47</sup> Jenner's manuscript is one example of how language and authorship could be used to promote credibility in domestic medicine and, when looked at in a larger context, her collection can be examined alongside print collections to compare language and authorship strategies to obtain trust.

### The "Ownership of Knowledge" Crisis: Trust and Printed Collections

Printed texts coincided and evolved alongside manuscript writing. Until 1650, approximately seventy percent of all medical books published were reprints.<sup>48</sup> In 1650, however, the London College of Physicians lost its influence over the licensing of medical books; soon, it became fashionable for the literate population to share in print their medical expertise. According to Mary Fissell's estimates, by the 1680s recipe collections comprised twenty to thirty percent of the total medical books published. *The Queen's Closet Opened* is one of these collections that had remarkable print success.<sup>49</sup> Unlike their Elizabethan predecessors, seventeenth and eighteenth-century published recipe collections resembled manuscripts because of their new materials, revised techniques, and growing emphasis on individual credit.<sup>50</sup> Printed collections were largely generic compilations, not tailored to the needs of individuals and their families.<sup>51</sup> It was the credibility of the names of elite women and men associated with recipes, not the medical advice, that determined the retail success of these collections.<sup>52</sup> Moreover, criteria for credibility extended to printed scientific texts for the public. James Secord suggests, in his exploration of

---

<sup>47</sup> Shapin, *Truth*, 222.

<sup>48</sup> Leong, "Medical Recipe Collections", 41.

<sup>49</sup> Mary Fissell's findings as cited in Leong, "Medical Recipe Collections", 37.

<sup>50</sup> Stine, "Opening Closets", 182

<sup>51</sup> Leong, "Medical Recipe Collections", 228.

<sup>52</sup> *Ibid.*, 185.

popular children's Newtonian literature, that credibility and celebrity were marketable in the household – “the name of Newton sold books”.<sup>53</sup>

The rapid increase in the publication of medical advice created a problem in the ownership of knowledge, further complicating the networks of trust within domestic medicine.<sup>54</sup> A larger publishing market meant that the ever growing readership struggled with determining which authors to trust and what information was accurate, making an author's reputation fundamental.<sup>55</sup> To sell successfully, printed collections had to be marketed on the assumption that the compiler and contributors were inherently trustworthy. Plagiarized material was common and using popular published medical advice in caregiving was risky if the individual did not understand the recipe. The “crisis” of trusted knowledge was not only in medical works, but in all printed material and this was due to the nature of the publishing industry.<sup>56</sup>

Maintaining trust in published material largely fell to a stationer's marketing abilities. Stationers (early modern publishers) were often distrusted by authors and readers because they were more interested in profit than printing truthful material. A stationer would arguably not meet Shapin's seventh maxim because he was not “disinterested” since his knowledge, however trusted, was intended for profit.<sup>57</sup> To combat the publication of unreliable knowledge, physician William Rand proposed in 1652 that the stationers' control over academic publications be transferred over to the Royal Society.<sup>58</sup> This was when gentlemanly language largely infiltrated

---

<sup>53</sup> James A. Secord, “Newton in the Nursery: Tom Telescope and the Philosophy of Tops and Balls, 1761- 1838,” *History of Science* 23 no. 2 (June 1985): 127-151.

<sup>54</sup> Lynette Hunter, “Books for daily life: household, husbandry, behaviour,” in *The Cambridge History of the Book Volume IV 1557-1695*, eds. John Barnard and D.F. McKenzie (Cambridge: Cambridge University Press, 2002), 528.

<sup>55</sup> Leong, “Medical Recipe Collections”, 201.

<sup>56</sup> Adrian Johns, “Science and the Book,” in *The Cambridge History of the Book Volume IV 1557-1695*, eds. John Barnard and D.F. McKenzie (Cambridge: Cambridge University Press, 2002), 297.

<sup>57</sup> Shapin, *Truth*, 212.

<sup>58</sup> Johns, “Science and the Book”, 298.

publishing and when the scientific elite's moderation of credibility was instilled in any print pertaining to natural philosophy.

Included in the thriving market of printed domestic manuals, *The Queen's Closet Opened* was ostensibly intended to offer guidance for elite women providing charitable caregiving. The compilation began with a preface claiming that comforting the distressed poor was an opportunity for the wealthy, concluding with the statement "out of Charity to a Work which is Charitable to your selves".<sup>59</sup> Marketing *The Queen's Closet Opened* as a charitable source of elite medical advice was a strategy that helped to ensure it was considered a morally sound work printed not intended for profit. The charitable advice gave the appearance of an elite authority that a wide audience desired and this resulted in the work's maintained success and popularity through numerous editions. Recipes for the privileged classes were now at the fingertips of the literate public.

Seventeenth-century published collections show a shift in language and structure emphasizing the "techniques" and experimental nature of the recipes.<sup>60</sup> This shift is evident in *The Queen's Closet Opened* starting with the fourth edition in 1658. The collection's structure is typical of most recipe collections, including Jenner's manuscript, in that the recipes were constant in their organization. First ingredients were listed and then a detailed procedure was given, followed by directions for administration or use and, finally, statements of efficacy. This organization is also similar to the modern scientific method. Uniformity in a recipe's structure made its information more accessible and user-friendly because an individual could glance at the recipe knowing where to look for certain information. Like many published medical collections, *The Queen's Closet Opened* had an alphabetical index of ailments, body parts, and recipe names,

---

<sup>59</sup> W.M. *Queen's Closet*, preface.

<sup>60</sup> William Eamon, *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture* (Princeton: Princeton University Press, 1994), 131.

allowing users to search for the remedy they needed via several search criteria. This differs from manuscripts like Jenner's collection which generally did not have an index. As well, Jenner's table of contents was not alphabetical and only loosely categorized by remedies for specific ailments. These structural differences highlight how printed collections were considered reference guides, while manuscripts were personalized and focused on remedies that the compiler used often or thought could be valuable.

Similar to Jenner's manuscript, statements of efficacy were used in *The Queen's Closet Opened* to convince readers that the recipes could be trusted. In the recipe "Sir Edward Tertils Salve, called the chief of all Salves" there was an entire section devoted to "the Virtues and use of it". Statements of efficacy like "It is good for all wounds and sores old or new, in any place" and "It helpeth all aches and pains of the Genitors in Man or Woman" used specific words to convey trust and usefulness.<sup>61</sup> Words such as "virtues", "help", and "good" were indicator words to catch a reader's attention and conveyed trust. In recipe titles, which caught the reader's eye first, ninety-eight statements of efficacy were used (Figure 1.3). The ten words most frequently used were: excellent, approved, proved, cure, good, comfortable [provides comfort], virtues, help, precious, sovereign. The word "excellent" was used most often at twenty-three percent of recipe titles containing efficacy statements. "Approved" was used in nineteen percent of in-title statements and "proved" was used in eight percent. Recipe titles included specific words to indicate formal authority, or that someone said the recipes work. For example, "approved" suggests that an individual supported the recipe's claim for efficacy, whereas "proved" implies the recipe was tested, but not necessarily deemed valuable.

---

<sup>61</sup> W.M. *Queen's Closet.*, 36-37.



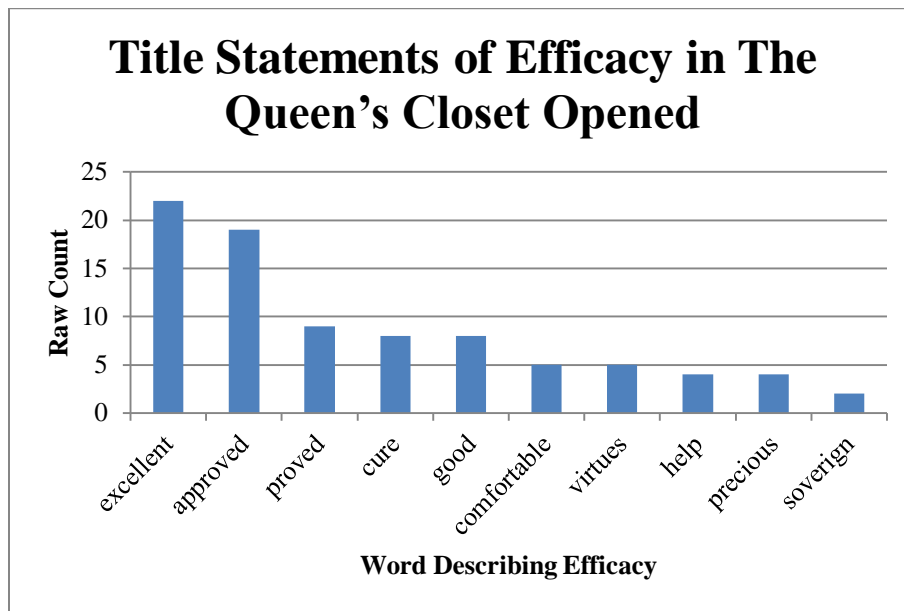


Figure 1.3 Title Statements of Efficacy in *The Queen's Closet Opened*

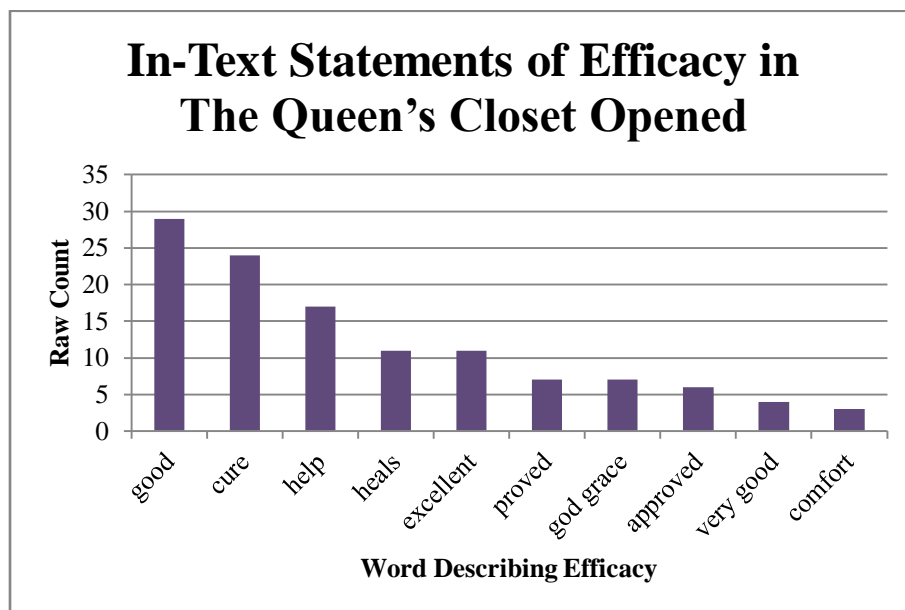


Figure 1.4 In-Text Statements of Efficacy in *The Queen's Closet Opened*

There were also 133 in-text statements of efficacy in *The Queen's Closet Opened*. These statements were found in addition to title statements of efficacy and on their own. The ten most frequently used were: good, cure, help, heals, excellent, proved, god grace [sic], approved, very good, and comfort. “Good” was used most often at twenty-two percent, “cure” was used in seventeen percent, and “help” was used in thirteen percent of the recipes that contained statements of efficacy.

The titles and the text of the recipes in *The Queen's Closet Opened* used specific and precise language to convey trust. Many of the efficacy words found in the print collection were also used by Jenner. Quantitatively, *The Queen's Closet Opened* had three times as many efficacy statements as Jenner's collection. The main difference in statements between the two collections is that *The Queen's Closet Opened* used “proved” and “approved” frequently whereas Jenner did not use them. This could simply be a difference in writing style, or it could suggest that approval was not as central in some manuscripts because recipes were often communicated through acquaintanceship. As with Jenner's collection, the language in *The Queen's Closet Opened* follows Shapin's maxims. Written cues or testimonials indicated that the recipes “cure” or were “good” for specific ailments (maxim iii) and that the remedies had been experienced first-hand (maxim iv). Most importantly, statements like “approved” specified that a credible authority deemed the remedy trustworthy (maxim v) and this approval was central to the marketing of the collection as trusted elite knowledge.

Besides being attributed to a queen, *The Queen's Closet Opened* cited many elite and notable contributors. The work is a composite of three other recipe collections with recipes indexed using abbreviations beside each “approver” or contributor. According to the preface, 163 medicinal recipes were taken from *The Pearl of Practice*, an earlier collection of physical and

chirurgical receipts. A “Pp” indicated that the source was from *The Pearl of Practice*, whereas “Qd”, *The Queen’s Delight*, and “Cc”, *The Compleat Cook* specified culinary sources.<sup>62</sup> The “approvers” were arranged according to hierarchical status: Kings, Queens, Earls, Countesses, Bishops, Lords, Ladies, Sirs, Masters, Doctors, Misters, and Mistresses.<sup>63</sup> Sometimes, recipes found in printed collections can be traced back to the manuscripts of their attributed authors. For example, the Countess of Arundel’s recipes in *The Queen’s Closet Opened* were similar to those found in her manuscript recipe collections, suggesting that she used the recipes and that the collection truthfully cited her as an “approver”.<sup>64</sup> This is by no means proof that all of the “approvers” listed in the index used their respective recipes. What it does show is that some recipes originated in manuscripts and were later included in print collections, revealing their continued trustworthiness as medical advice that was transmitted across eras.

### Conclusion

The unregulated medical marketplace contained an overwhelming number of treatment options, forcing domestic practitioners to discern who could be trusted and what remedies worked best. Networks of trust and criteria for determining credible medical information were a basis of domestic medicine evident in recipe collections. Jenner’s manuscript is exemplary of the transmission of trusted medical recipes across class and gender boundaries and *The Queen’s Closet Opened* is evidence of the importance of citing elite contributors as a marketing strategy in printed collections. Constructs of trust were fundamental to eighteenth-century society as a whole and were part of an elite rhetorical style used to establish authority in daily transactions. Consequently, trust maxims also existed within scientific societies, where maintaining credibility and elite reputations were of the utmost importance. Thus, recipe compilers operated under

---

<sup>62</sup> W.M. *Queen’s Closet*, preface.

<sup>63</sup> Ibid.

<sup>64</sup> Stine, “Opening Closets”, 185.

similar maxims used by fellows of the Royal Society that Shapin has argued were reserved for scientific gentlemen.

To be trustworthy, specific language was used in recipe collections and the criteria for this trust can be framed using the maxims outlined by Shapin. Both manuscript and printed recipe collections used contributor citations and statements of efficacy to convey authority, trust, and credibility. The empirical language and structure used in medicinal recipe collections, as well as their focus on natural knowledge, situate household experimentation in close proximity to scientific societies in both the preservation and transmission of trusted knowledge. Domestic experimenters used scientific techniques and principles that encouraged a determination of plausibility because recipes were often tested for efficacy (maxim i). Many recipes were duplicated in various collections and their ingredients were consistently associated with particular ailments (maxim ii). In print collections like *The Queen's Closet Opened* statements of efficacy approving remedies acted as testimonials from trusted elite authorities, an important marketing ploy (maxims iii and v). As Jenner's collection reveals, recipes were often exchanged between experienced practitioners and were tested and modified by compilers (maxims iv and v). Finally, an interest and aptitude for experimentation and a disinterest for profit were necessary for an individual to have a credible reputation (maxims vi and vii). *The Queen's Closet Opened* claimed its recipes were intended for charitable caregiving, preserving its reputation as a credible and moral publication. Moreover, interest and aptitude are exhibited by Jenner, whose collection specialized in distillation and used complex equipment and detailed techniques, suggesting that her manuscript is a record of scientific practice in the home. It is this interest in experimental equipment and aptitude for distillation that will be discussed in my next chapter.

## Chapter Two

### The Experimental Kitchen: Equipment and Techniques in Distillation Recipes

Whether a common pot or complex still, equipment was central to making medicine. Recipe collections serve as indicators of the equipment potentially available in middling and upper class homes that could be used for creating medicine during the eighteenth century. As recipes were often compiled from a multitude of print and manuscript sources, collections often depicted idealized scenarios of what equipment should be used and how recipes should be prepared. In reality, individuals had to adapt recipes to match their skill level and equipment availability.<sup>1</sup> There is no way to determine which pieces of equipment Jenner owned, or even used, but her manuscript provides a general inventory of what an individual household might own. Printed household guides offer a comparison of equipment used in preparing trusted and popular remedies recommended by reputable authors to a gendered readership. Recipe collections are thus useful sources of material history because they reveal what commodities and tools recipe compilers aspired to own, an important consideration during the consumer revolution.

My analysis focuses on distillation recipes because distillation, along with its complex equipment and techniques, can be seen as exemplifying science in the home. Distillation was one of the most important processes in early modern medicine and was essentially thought of as a method of perfecting a substance, or releasing its virtues (quintessence).<sup>2</sup> Contemporary distiller Ambrose Cooper defined distillation as, “the art of separating, or drawing off the spirituous,

---

<sup>1</sup> Sara Pennell, “‘Pots and Pans History’: the Material Culture of the Kitchen in Early Modern England,” *Journal of Design History* 11 no. 3 (1998): 211.

<sup>2</sup> Jayne Elisabeth Archer, “Women and Chymistry in Early modern England: The Manuscript Receipt Book (c. 1616) of Sarah Wigges” in *Gender and Scientific Discourse in Early Modern Culture*, ed. Kathleen P. Long (Farnham: Ashgate Publishing), 215; 208.

aqueous, and oleaginous parts of a mixt body from the grosses, and more terrestrial parts, by means of fire, and condensing them again by cold”.<sup>3</sup> It is uncertain when and why distillation went out of use in the home. Maintaining a large distillation production was costly, labour intensive, and time consuming.<sup>4</sup> With the increase of apothecary-prepared remedies into the eighteenth century, the question arises as to why recipe compilers such as Jenner continued to show an interest in distillation. Evidence of this specialized interest found in eighteenth-century print and manuscript recipe collections suggests that stills and alembics were valued as experimental equipment.<sup>5</sup> Recipe compilers enjoyed testing and modifying recipes, had an aptitude and an interest in chemistry, and considered distilling remedies a leisure pursuit rather than a medical necessity. Distillation was a way for scientifically inclined women (and occasionally men) to engage with chemistry and natural philosophy in the comfort of their home and their recipe collections are evidence of this practice.

Alongside recipe collections, the household still room has been considered by historians to be one of the most important sites of early modern female creativity.<sup>6</sup> However, asserting that distillation was nothing more than a feminized household creative outlet displaces the importance of science in the home and discredits men and women as legitimate experimenters. Gender historians focusing on the eighteenth century are currently investigating the shortcomings of considering the household as a feminized space, an important contribution for exploring men’s involvement in the household and for situating the household’s role in a larger

---

<sup>3</sup> Cooper, *The Complete Distiller* (London, 1757), 1; An earlier notable distillation guide is Sir Hugh Plat’s, *The jewell house of art and nature containing diuers rare and profitable inuentions* (London: 1594).

<sup>4</sup> For further examples on the length of time it took to distil remedies see Elaine Leong, “Medical Recipe Collections in Seventeenth-century England: Knowledge, Text and Gender” (D. Phil. thesis, University of Oxford, 2005), 163.

<sup>5</sup> Leong survey of recipe collections show that there was an increase in distillation guides at this time and that the use of the word “distil” increased into the eighteenth century. Leong, “Medical Recipe Collections”, 66; 107.

<sup>6</sup> Archer, “Women and Chymistry in Early modern England”, 215.

context of consumerism.<sup>7</sup> The household reflects gender and class dynamics as this space, and the goods it held, was not specifically male or female, as both genders used it.<sup>8</sup> Moreover, depending on the size of a household, an array of servants could be found in the kitchen working or socializing and even interacting with their employers.<sup>9</sup> This chapter builds on the work of Londa Schiebinger who has argued that in elite culture, women's household activities "gave them a surprisingly strong position in early modern science" and that their pursuits were amplified in the rise in 'popular' science during the eighteenth century.<sup>10</sup> Moreover, in recent historiography, household activities like "medical cookery" are less often portrayed as restrictive to women, but included with "the academic fields of nutrition, botany, and pharmacy, sciences increasingly staffed by men".<sup>11</sup> Thus, I consider the household (including the kitchen) as a non-feminized space for experiment and scientific inquiry to further recognition of the eighteenth-century men and women who engaged with science in the household.

The household was the locus of early modern scientific experimentation, which continued into the eighteenth century.<sup>12</sup> Fellows of the Royal Society, amateur experimenters, and individuals preparing medicinal remedies all needed to have a comfortable and private work space. The concept of the household as a threshold between public and private scientific space is one of substantial interest and debate, particularly because a private space was not considered

---

<sup>7</sup> See for example, Karen Harvey, "Men Making Home: Masculinity and Domesticity in Eighteenth-Century England," *Gender and History* 21 no. 3 (November 2009): 520-540; Amanda Vickery, *Behind Closed Doors: At Home in Georgian England* (New Haven: Yale University Press, 2009).

<sup>8</sup> Lorna Weatherill, "A Possession of One's Own: Women and Consumer Behavior in England, 1660-1740," *Journal of British Studies* 25 (April 1986): 154; For the gender implications of the household being a public and private sphere see: Ingrid Tague, *Women of Quality: Accepting and Contesting Ideals of Femininity in England, 1690-1760* (Suffolk: The Boydell Press, 2002), 6.

<sup>9</sup> C. Anne Wilson, *The Country House Kitchen 1650-1900: Skills and Equipment for Food Provisioning*, eds. Pamela Sambrook and Peter Brears (London: Alan Sutton Publishing, 1996), 77-91.

<sup>10</sup> Londa Schiebinger, *The Mind Has No Sex?* (Cambridge MA: Harvard University Press, 1989), 65.

<sup>11</sup> *Ibid.*, 104.

<sup>12</sup> For the history of natural philosophy in the early modern domestic sphere see: Deborah Harkness, "Managing an Experimental Household: The Dees of Mortlake and the Practice of Natural Philosophy," *Isis* 88 no. 2 (June, 1997): 247-262; For a history of earlier female experimenters see, for example Alisha Rankin, "Becoming an Expert Practitioner: Court Experimentation and the Medical Skills of Anna of Saxony (1532-1585), *Isis* 98 (2007): 28-53.

credible due to a lack of witnessing.<sup>13</sup> It was this lack of credibility of private spaces, along with the supposed “unreliable” nature of women, which likely prevented the creation of domestic medicine from being considered legitimate science. The early modern “laboratory”, as Karin Knorr-Cetina ambiguously describes it, “is an enhanced environment which improves upon the natural order in relation to the social order”.<sup>14</sup> Knorr-Cetina argues further that a “laboratory” was not simply a space, but a key aspect of experimentation and, therefore, this space could take on a multitude of features where diverse cultural practices existed.<sup>15</sup> This description of experimental space is important when discussing the household kitchen. It illustrates that the household could carry equal validity as a trusted space for experimentation as the rooms of the Royal Society’s headquarters, or even fields and forests as spaces for botanical and geological investigations.

In the eighteenth century, the relationships between the kitchen, still room, and laboratory were complex. Despite being spaces of scientific experimentation, their intended functions differed.<sup>16</sup> When examining the spaces where distillation equipment was kept, it is clear that the notion of an experimental space was not clearly defined. Stobart’s research indicates that distillation equipment was usually located in the following areas: the kitchen, buttery, closet,

---

<sup>13</sup> Steven Shapin, “The House of Experiment in Seventeenth-Century England,” *Isis* 79 (1988): 374; C.f. Steven Shapin, *A Social History of Truth: Civility and Science in Seventeenth-Century England* (Chicago: University of Chicago Press, 1994), see for example pp. 307; 392-403; Larry Stewart, *The Rise of Public Science: Rhetoric, Technology, and Natural Philosophy in Newtonian Britain, 1660-1750* (New York: Cambridge University Press, 1992), especially p. xx.

<sup>14</sup> The term laboratory was not commonly used in the seventeenth and eighteenth centuries to denote an experimental space, although historians often use the term anachronistically out of convenience. Cited from Shapin, “The House of Experiment”, 377. Karin Knorr-Cetina, “The Couch, the Cathedral and the Lab: On the Relationship between Experiment and Laboratory Science,” in *Science as Practice and Culture*, ed. A. Pickering (Chicago: University of Chicago Press, 1992), 116.

<sup>15</sup> Ibid.

<sup>16</sup> Jennifer K. Stine, “Opening Closets: The Discovery of Household Medicine in Early Modern England” (Ph.D. dissertation Stanford University, 1996), 36.



hall, parlour and brew house.<sup>17</sup> The existence of still rooms and still houses as separate spaces was, in part, due to the hazards of distilling. Patrick Wallis notes a similar correlation between space and distilling in apothecary shops where distillation was either done outside, in a cellar, or a kitchen separate from the shop to minimize smell and fire hazards.<sup>18</sup> The availability of space and the practitioner's social status largely determined where distillation took place. Still rooms in wealthy country homes, from around the sixteenth century, were the central locations for preparing medicines and cordial waters. They were an experimental space where knowledge was created and often transcribed into manuscripts.<sup>19</sup> By the end of the eighteenth century, the still room shifted to an area designated for servants and for the storage of confections, indicating a decline in small-scale distillation into the Victorian era.<sup>20</sup>

Equipment was a necessary component of many experimental spaces and historians generally agree that instruments were, and still are, imperative for understanding the scientific process.<sup>21</sup> I suggest that this notion should be extended into the realm of kitchen implements, which were also often used in scientific experimentation. Many of these multi-purpose tools have been misconstrued as culturally-passive artefacts and their multi-functionality has contributed to the creation of medicine being overlooked as a household practice.<sup>22</sup> Furthermore, developments

---

<sup>17</sup> Anne Stobart, "The Making of Domestic Medicine: Gender, Self-Help and Therapeutic Determination in Household Healthcare in South-West England in the Late Seventeenth Century" (Ph. D. thesis, Middlesex University, 2008), 182.

<sup>18</sup> Patrick Wallis, "Consumption, Retailing and Medicine in Early Modern London," *Economic History Review* 61 no.1 (2008): 36.

<sup>19</sup> Mark Girouard, *Life in the English Country House: a Social and Architectural History* (New Haven: Yale University Press, 1978), 208; Stine, "Opening Closets", 37; Leah Knight, *Of Books and Botany in Early Modern England: Sixteenth-century Plants and Print Culture* (Aldershot: Ashgate, 2009), 125.

<sup>20</sup> Wilson, *The Country House Kitchen*, 140-141.

<sup>21</sup> David Gooding, Trevor Pinch and Simon Schaffer, "Introduction: some uses of experiment" in *The Uses of Experiment: Studies in the Natural Sciences*, eds. David Gooding, Trevor Pinch and Simon Schaffer (Cambridge: Cambridge University Press, 1989), 5.

<sup>22</sup> Elaine Leong and Sara Pennell, "Recipe Collections and the Currency of Medical Knowledge in the Early Modern 'Medical Marketplace,'" in *Medicine and the Market in England and its Colonies, c.1450 c.1850*, eds. Mark S.R. Jenner and Patrick Wallis (New York: Palgrave Macmillan, 2007), 135; Gooding, Pinch and Schaffer, "Introduction: some uses of experiment", 32.

in equipment technology are discussed often only in the context of consumerism or materialism and not, as Nancy Cox argues, in relation to improved kitchen efficiency and comfort for housewives and households.<sup>23</sup> Kitchen paraphernalia were considered part of a married woman's limited property and were important components of a woman's inheritance.<sup>24</sup> As Stobart's research indicates, owners of distillation equipment varied from gentlemen to yeomen, and women were also owners.<sup>25</sup> This suggests that an aptitude in distillation was not necessarily restricted to the upper classes and that it was not a gender-specific practice. Indeed, men were also collecting medicinal recipe collections and, in some cases, preparing them.<sup>26</sup> Kitchens and household items, including distillation equipment, should therefore not be looked upon as part of the female sphere only, but as components of a wider domestic practice of creating medicine and simultaneously engaging in natural philosophy.

Other historians have used probate records (records of people's possessions taken after death) as primary sources for exploring household equipment. Lorna Weatherill notes that probate records are important for showing larger household material interests and their consumer identities.<sup>27</sup> As Weatherill has shown, variations in nomenclature create difficulty in assessing the diversity of equipment in households because one artefact could have been called several different names.<sup>28</sup> Whereas probate records only list what the household owned, a recipe collection gives some indication of how particular kitchen items might be used. As such, recipes suggest the perceived practical value of a tool, not just a monetary value.

---

<sup>23</sup> Nancy Cox, "'A Flesh pott, or a Brasse pott or a pott to boile in': Changes in Metal and Fuel Technology in the Early Modern Period and the Implications for Cooking," in *Gender and Material Culture in Historical Perspective*, eds. Moira Donald and Linda Hurcombe (New York: St. Martin's Press, 2000), 144.

<sup>24</sup> Pennell, "'Pots and Pans History'", 211.

<sup>25</sup> Stobart, "The Making of Domestic Medicine", 182.

<sup>26</sup> Lisa Wynne Smith, "Women's Health Care in England and France (1650--1775)" (Ph.D. thesis, University of Essex, 2002), 73.

<sup>27</sup> Weatherill, "A Possession of One's Own": 155-156.

<sup>28</sup> Pennell, "'Pots and Pans History'", 208.

To trace the evolution of distillation throughout the eighteenth century, and how Jenner's collection fits within the tradition, I examine four printed collections that had chapters devoted to distilling. Gervase Markham's best-seller *The English Housewife* was originally published in 1615 and reprinted numerous times until 1683. The edition I reference is a collation of various editions, with a focus on the 1631 version. This compendium shows how Markham's medicinal and distillation recipes have been added to and re-organized throughout re-publication, making it more useful than individual editions.<sup>29</sup> Markham attributed his recipes to a manuscript that had belonged to an "Honorable Countesse", although he may, however, have used the Countess as a 'catch-all' citation. Citing each recipe's author was not a common practice until later in the seventeenth century. Moreover, even if the Countess did exist, Markham would not have wanted to reveal the Countess's identity out of social convention, which would have contributed further to a lack of author citations.<sup>30</sup> Markham's work highlights why distillation developed as an important household practice and provides an earlier temporal context for how the motivation for distilling waters changed during the eighteenth century.

My second source, a 1719 printed collection called *A Butler's Recipe Book*, is intriguing because it alludes to male servants experimenting and compiling recipe collections that included distillation.<sup>31</sup> Its attributed author was a butler from Brighthelmstone (Brighton), Thomas Newington. Newington's collection was originally a manuscript written in a neat hand and is comprised of three hundred pages with an index. The printed edition of this collection contained a small selection of culinary, medicinal, and cosmetic recipes supposedly compiled by Newington. In total, this collection is comprised of thirty-five recipes, seven of which are

---

<sup>29</sup> Gervase Markham, *The English Housewife*, ed. by Michael R. Best (Kingston: McGill-Queen's University Press, 1986), lv.

<sup>30</sup> John B. Blake, "The Compleat Housewife," *Bulletin of the History of Medicine* 49 no.1 (1975): 31; Leong, "Medical Recipe Collections", 214.

<sup>31</sup> Thomas Newington, *A Butler's Recipe Book, 1719*, edited by Philip James; with wood-engravings by Reynolds Stone; with an introduction by Ambrose Heath (Cambridge: Cambridge University Press, 1935).

medicinal. Newington has been difficult to trace biographically and may have been an assumed name to promote the collection. Many published recipe collections had anonymous authors, or had pseudonymous compilers, but can nevertheless reflect a broader social interest and access to the practice of compiling recipe collections beyond the elite into the middling classes.<sup>32</sup> My third source, Ambrose Cooper's *The Complete Distiller*, was first printed in 1757 and was re-printed four times from 1757-1800. Cooper was a professional distiller and his work brings attention to the shift in distillation in the eighteenth century from an art to a professional scientific practice. What is interesting about this treatise is that it was intended for the "use of distillers and private families", suggesting that professional advice was accessible in the home.<sup>33</sup> His work was divided into three sections. The first included methods of distillation with descriptions of instruments and a discussion on fermentation, the second was on distilling simple waters from plants and flowers, and the third discussed how to make compound cordial waters. Cooper also included an appendix of drugs, plants, and flowers commonly used by distillers.

My fourth source is a compilation edition of Eliza Smith's *The Compleat Housewife*, originally published in 1727 and reprinted eighteen times until 1773.<sup>34</sup> It gained significant popularity in Britain and was the first cookbook to be printed in America.<sup>35</sup> With over three hundred medicinal recipes, Smith's collection of family recipes and approved remedies is an exceptional source for examining equipment commonly used in eighteenth-century households.<sup>36</sup> Furthermore, Smith indicated that she had first-hand experience using many of the recipes, adding to the credibility of her collection. Her experience is acknowledged in the preface: "As

---

<sup>32</sup> Sarah Pennell, "Perfecting Practice? Women, Manuscript Recipe and Knowledge in Early Modern England" in *Early Modern Women's Manuscript Writing: Select Papers from the Trinity/Trent Colloquium*, eds. Victoria Burke and Jonathan Gibson (Aldershot: Ashgate, 2004), 240.

<sup>33</sup> Cooper, *The Complete Distiller*, frontispiece.

<sup>34</sup> E. (Eliza) Smith, *The Compleat Housewife, or, Accomplish'd Gentlewoman's Companion* (London: Literary Services and Production, 1968).

<sup>35</sup> Blake, "The Compleat Housewife", 30.

<sup>36</sup> Smith, *The Compleat Housewife*, preface.

the whole of this collection has cost me much Pains, and a thirty years diligent application, and as I have had experience of their use and efficacy, I hope they will be as kindly accepted, as by me they are generously offered to the public.”<sup>37</sup> Out of 800 recipes in total, seventy were for cordials and required the distilling or steeping of ingredients. Analysis of Smith’s equipment and accompanying techniques she suggested allows for a comparison of equipment and techniques listed in Jenner’s manuscript to those commonly found in printed collections.

For my analysis of equipment and techniques found in Jenner’s manuscript, and later in Eliza Smith’s *The Compleat Housewife*, I have used quantitative and qualitative approaches. Jenner’s recipes were written meticulously and many stated specific equipment and instructions on how to prepare remedies, making her manuscript easy to read for evidence of specific tools and techniques. More importantly, her focus on distillation makes her collection valuable for discerning the types of distillation equipment and procedures used domestically and how they compared to those found in popular printed texts. Tallies of equipment are intended to help illustrate what equipment was available, how often it was used, and how equipment could differ between manuscript and print collections. I created four categories to encompass the multi-purpose kitchen tools found in both collections: heating sources, storage vessels, cooking vessels, and miscellaneous equipment. These categories are for convenience only. In reality, tools were flexible commodities with multiple uses, even within one recipe. Calculating percentages for how often equipment was used overall was challenging because a tool could be mentioned more than once in a recipe, but in different procedures. Thus, percentages I include are approximations to account for multiple usages. Calculating a percentage of recipes indicating a specific technique was impractical because many recipes used a technique multiple times hence, only a raw count is given.

---

<sup>37</sup> Smith, *The Compleat Housewife*, preface.

Eighteenth-century print collections and household guides often had a section on medicinal receipts and some also included distilling recipes for cordial waters. Household guides were a popular and heterogeneous genre of print in the early modern period because they included specialized 'how-to' instructions and even trusted 'secrets' from a multitude of practices intended for a wide readership. Field claims that this heterogeneity allowed compilers or authors to construct a flexible and authoritative identity.<sup>38</sup> In the seventeenth century, distillation was seen as a charitable activity of aristocratic women who provided caregiving to their household and neighbours. Many collections from this era (including *The Queen's Closet Opened* discussed earlier) were published with intention for charity. Gervase Markham's *The English Housewife* was marketed for a female audience and is a reflection of the early modern attitude towards women and household economics. Markham's notion of the 'ideal housewife' stemmed from his romantic and poetic personality, and from his earlier focus on the 'perfect husbandman'.<sup>39</sup> He stressed that women should be subordinate in the household, but also that they were imperative to the success of an economic household partnership.<sup>40</sup> An important component of a housewife's role in the home was taking care of the health of the family.<sup>41</sup> As Markham noted, "I would have her [the housewife] furnish herself of very good stills, for the distillation of all kinds of waters, which stills would be either of tine [sic], or sweet earth; and in them she shall distil all sorts of waters meet for the health of her household."<sup>42</sup> Owning quality equipment was, according to Markham, an important part of a housewife's role and her

---

<sup>38</sup> Catherine Field, "'Many hands hands': Writing the Self in Early Modern Women's Receipt Books" in *Genre and Women's Life Writing in Early Modern England*, eds. Michelle Dowd and Julie Eckerle (Aldershot: Ashgate, 2007), 54.

<sup>39</sup> Markham, *The English Housewife*, xxvi.

<sup>40</sup> *Ibid.*, xxii.

<sup>41</sup> *Ibid.*, xxix.

<sup>42</sup> *Ibid.*, 125.

reputation. Ideally, women's maintenance of household health, alongside charitable medicine, contributed to social order and the preservation of the health of the state.

Newington's collection had a more specific intended audience than Markham's printed work. Newington claimed that his recipes were attributed to or donated from noble families and that he selected recipes that he deemed useful, effective, and worthy enough to be presented to his mistress.<sup>43</sup> In his preface, Newington wrote, "I question not but you will much improve what I here lay before you", further evidence that the collection was intended as a gift.<sup>44</sup> Throughout the eighteenth century, the paternalistic "mistress-servant" relationship shifted to one of a more impersonal and contractual agreement.<sup>45</sup> Consequently, it was not an everyday occurrence for gifts to be exchanged between servant and mistress. Butlers had considerable status as servants but were not normally found in the kitchen preparing medicines or food, although they would have been involved with household management.<sup>46</sup> It was, however, common for men to be cooks, so Newington could have gained his culinary knowledge through previous employment. Thus, Newington could be an extraordinary case of a dedicated servant who also had extensive medical and experimental knowledge. Another possibility is that the printed edition was written in such a way to suggest that the recipes came from an elite household as a marketing ploy, even though Newington may have never actually prepared the recipes. The collection could have been associated with an aristocratic woman to give the recipes credibility, as with *The Queen's Closet Opened* discussed above.

Although written by a professional distiller, Cooper's work was intended for both professionals and for "those who distil simple and compound waters for their own use, or to

---

<sup>43</sup> Newington. *A Butler's Recipe Book*, x.

<sup>44</sup> Ibid., preface.

<sup>45</sup> Tague, *Women of Quality*, 112.

<sup>46</sup> J.T. Cliffe, *The World of the Country House in Seventeenth-Century England* (London: Yale University Press, 1999), 85.

distribute to their indigent neighbours”.<sup>47</sup> Cooper’s claim that his treatise was intended for charitable domestic medicine follows a tradition of similar household guides, like Smith’s *The Compleat Housewife* that was for “those generous, charitable, and Christian gentlewomen, who have a disposition to be serviceable to their poor country neighbours”.<sup>48</sup> Using their medical and distillation skills to aid others was a way for women (and men) to ensure their place in the “world to come”.<sup>49</sup> Yet, Cooper’s work differs from the others in that it was intended for a scientifically competent lay audience as its contents were highly specific and often complex. When elaborating on the hazards of distilling and the skill involved, he stated: “I shall further observe, that [distilling] should never be left to the servants. What can be expected from ignorant persons? Fear will seize them, when the greatest presence of mind is requisite.”<sup>50</sup> This quotation suggests that when this treatise was written in 1757, distillation was believed to require scientific aptitude. Distillation recipes continued to be found in recipe collections in the eighteenth century, although the motivation behind their use appears to have carried a greater scientific precedence. Jenner’s collection, when compared to distillation recipes in printed household guides from the seventeenth and eighteenth centuries, is more reflective of scientific interest and personal use than charitable caregiving. Jenner compiled her work at the beginning of a transitional era between the seventeenth-century practice of charitable domestic medicine and the wide-spread availability of purchased remedies and physician care by the mid-eighteenth century. Her specific interest in distillation therefore points to Jenner continuing the tradition of making waters and syrups out of enjoyment, not obligation.

---

<sup>47</sup> Cooper, *The Complete Distiller*, 7.

<sup>48</sup> Smith, *The Compleat Housewife*, preface.

<sup>49</sup> Ibid.

<sup>50</sup> Cooper, *The Complete Distiller*, 36.



### “For makeing of Waters and Syrups”: Jenner’s Equipment and Distillation Techniques

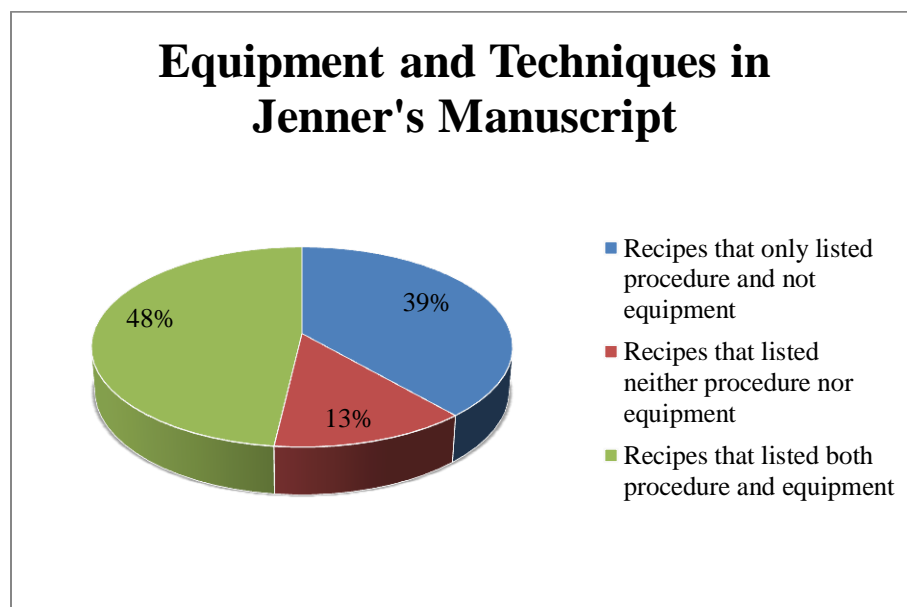
Using the correct tools properly was critical to preparing domestic medicine successfully. Clear and specific directions or techniques for using equipment and for preparing a remedy were equally important. A recipe compiler also needed to be confident in her ability to follow instructions to use equipment correctly. Consequently, trust in one’s own competence played an similarly significant role in the process of creating recipes as it did in selecting whose remedies to trust. Specific and meticulous instructions were intended to sustain a high level of accuracy and reliability. The proper use of equipment and its effectiveness in producing accurate results were concerns of many early modern practitioners of science. Equipment that broke, leaked, or exploded would spoil experiments, waste time, and threaten the user’s credibility. When describing the chemical apparatus, eighteenth-century chemist and apothecary Robert Dossie argued that quality equipment ensured “quick dispatch of the business undertaken, but also ample savings in labour, fuel, and, frequently, the produce of the operation”.<sup>51</sup> Examining the variety of equipment and accompanying techniques Jenner included in her recipes gives some indication of not only what instruments were available as common cookery tools, but also how they were multi-purpose. Thus, the common pot could be considered a scientific tool if it was used for experimental purposes.

In Jenner’s recipe collection of 135 recipes, eighty-seven percent of her recipes gave instruction for how to prepare the remedy (Figure 2.1). None of Jenner’s recipes listed specific equipment without giving further instruction on how to use it. Almost one half of Jenner’s recipes (forty-eight percent) gave some direction on how to prepare the recipe and which equipment should be used. It is this attention to recording equipment and specific instructions

---

<sup>51</sup> Robert Dossie, *The elaboratory laid open, or, the secrets of modern chemistry and pharmacy revealed* (London: 1758).

that gives Jenner's manuscript a particularly scientific quality. Thirty-nine percent of the recipes listed procedures for preparing the recipe but not equipment. For many of these recipes, specific equipment appears to be unimportant or implied through a technique and would have likely been in Jenner's home for daily use. For instance, a recipe could give amounts of ingredients like purchased powders and simply state to mix them together before consuming, without any indication of which vessel to use. Only thirteen percent listed neither procedure nor equipment. These recipes were in general less complex and included short-hand recipes that were small variations and recipes that just mentioned quantities of pre-made apothecary items and how to administer them. This suggests Jenner had the basic skills necessary to measure and mix ingredients and that she found these simple recipes valuable. There were also a couple recipes that appear to be transcribed letters from physicians providing advice at length for desperate cases of Small Pox and Consumption, but were not actually recipes for how to make a remedy.



**Figure 2.1: Equipment and Techniques in Jenner's Manuscript**

The hearth, stove, and oven were equipment central to daily domestic life and to preparing recipes. Controlling heat was crucial for the success of a recipe. Cooper argued that the only way to prevent distilling accidents was to have sufficient expertise in not only distilling procedures and equipment, but also “the knowledge of fire, which depends on the fuel”.<sup>52</sup> Jenner’s recipes explained in detail how to use heat and what type of heat source should be used. A soft or gentle fire was used in seven percent of Jenner’s recipes and nondescript, “moderate” and “charcoal” fires were mentioned collectively in six percent of the recipes (Table 2.1). For example, in a recipe for “Poppy Water” it was stated that after the flowers had sat in a “limbeck” for a day, “draw it off wth A Gentle fire As long as it runneth Strong”.<sup>53</sup> Continually stoking the fire to ensure even and proper heat distribution was hence integral to the creation of many remedies and was an equally important technique in scientific and industrial experiments which also used fire for heat.

<b>Equipment</b>	<b>Raw Count</b>	<b>% (approx.)</b>
Bottles	20	15
Cold Still	16	12
Soft/Gentle Fire	9	7
Fire (other)	8	6
Earthen Pot (glazed and nondescript)	8	6
Glass(es)	7	5
Alembic (spelt Limbeck)	6	4
Stone Mortar, Skillet	4	3
Filter/Brown Paper, Muslin	3	2
Pipkin, Gallipot	3	2

**Table 2.1: Equipment in Jenner’s Manuscript**

<sup>52</sup> Cooper, *The Complete Distiller*, 37.

<sup>53</sup> Wellcome, WMS 3039, f. 8.

Bottles, glazed earthen-ware pots, and glasses were vessels commonly used in the household to hold food and medicine and were integral to the practice of distilling. They came in an assortment of sizes and could be labelled and organized. Moreover, storage tools were not confined to the kitchen; they were found in laboratories, on apothecary shelves, and were used in a variety of trades and industries. From the late-seventeenth into the eighteenth century, British glass and bottle technologies developed with advances in coal-fired furnaces and glass production became a thriving industry. Apart from cut glass used to make common bottles, drinking glasses, and windows, flint glass became a luxury item in eighteenth-century Britain. Maxine Berg notes that the price for a dozen wine glasses or everyday glasses in 1715 was five or six shillings (approximately a week's wage for a glassmaker).<sup>54</sup> As indicated in Table 2.1, approximately fifteen percent of Jenner's recipes stated that the recipe should be bottled, revealing the importance of glassware in distillation and more generally, in the home for daily use. For example, in a recipe "To make Surfeit Water" – a digestive aid – it specified to "infuse a week in a pot close stopt then strain it off and bottle it for your use".<sup>55</sup> As with other chemical solutions, storing medicinal waters properly was important because loose seals could cause the medicine to go rancid and become ineffective. Eight of Jenner's recipes required the use of earthen pots. Her first recipe "Epidemic, or Plague water" stated that a variety of herbs should be added, then "let them Steep in A gallon of Good white wine in A earthen pot well glazed 2. Days & 2 nights; Close Covered; Stir them once A day; then distill it in A Cold Still; keeping A Soft fire."<sup>56</sup> As illustrated in Figure 2.2, twenty-five of Jenner's recipes said to "cover and let stand".

---

<sup>54</sup> For the history of glass and chinaware see, Maxine Berg, *Luxury and Pleasure in Eighteenth-Century Britain* (Oxford: Oxford University Press, 2005), 120-126.

<sup>55</sup> Wellcome, WMS 3039, f. 7.

<sup>56</sup> *Ibid.*, f. 1.

Allowing ingredients to stew or sit in closed vessels like bottles or earthen-ware enabled fermentation, strengthening the alcoholic and, presumably, the medicinal qualities.

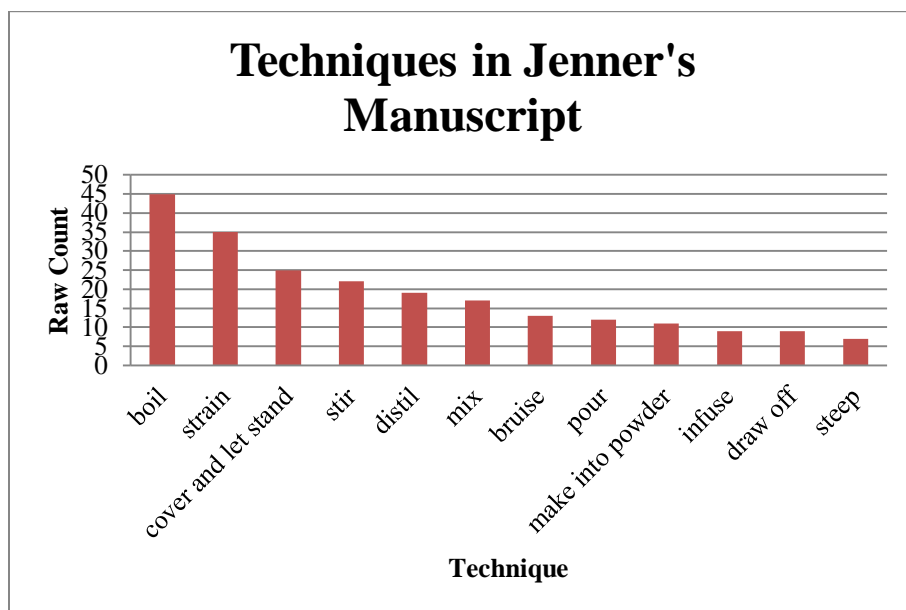


Figure 2.2: Techniques in Jenner's Manuscript

Earthen-ware pots were cheaper than metal pots, non-toxic, and fragile but it was not, however, until late in the eighteenth century when they became common tools in the home.<sup>57</sup> Ceramics were specially glazed earthen-ware that became popular luxury commodities in the eighteenth century, particularly pieces created by Josiah Wedgewood.<sup>58</sup> Jenner's manuscript specifically calls for her pots to be earthen-ware and in several cases they were to be "well glazed", suggesting that they were likely ceramic (though not necessarily Wedgewood). The use of unglazed (or non-specific) earthen-ware and ceramics in Jenner's recipes is reflective of the

<sup>57</sup> Cox, "A Flesh pott", 152.

<sup>58</sup> For the history of Wedgewood and the rise of eighteenth-century ceramics see: Neil McKendrick, "Josiah Wedgewood and the Commercialization of the Potteries," in *The Birth of a Consumer Society: The Commercialization of Eighteenth-Century England*, eds. Neil McKendrick, John Brewer and J.H. Plumb (Bloomington: Indiana University Press, 1982), 100-145; Berg, *Luxury and Pleasure*, 127-153.

rise of both commodities in eighteenth-century homes for both cooking and serving use.<sup>59</sup> Moreover, storing distilled waters in glass or non-toxic earthen-ware helped to preserve the integrity of a remedy. Glazed ceramics and china were even more effective because they were durable and specially coated to prevent toxins from leaching. Gallipots and pipkins were two further types of storage vessels which were specially named small glazed earthen-pots. Gallipots were used for the storage of ointments and medicines at apothecaries and Jenner likewise used them to hold syrups, oils, and ointments. Jenner's citations of earthen-ware, especially glazed ceramics, suggest that she was wealthy enough to have access to these new desirable commodities, or at least the recipes she collected came from individuals who recommended using improved earthen-ware.

An array of equipment was used in cooking and preparing ingredients in medicinal recipes. Although I classify them as cooking implements, these everyday tools were also used in scientific, apothecary, and industrial practices and were by no means restricted to women's culinary activities in the home. A pipkin was a multi-purpose vessel used for both storage and serving and was ambiguously defined as a pot or pan, sometimes earthen or possibly copper. Jenner used her pipkin for heating ingredients and it was cited in three of her recipes. For instance, in Jenner's salve recipe for sore breasts, a "very well glazed new Pipkin" was used as a vessel in which to boil ingredients.<sup>60</sup> The technique of boiling ingredients occurred the most frequently out of all the techniques in Jenner's recipe, at a count of forty-five. Other common techniques were mixing ingredients together –often in a multi-step process, stirring ingredients – usually while they were boiling over the fire, or steeping in an earthen pot (Figure 2.2).

---

<sup>59</sup> "Ear - Easy chair", *Dictionary of Traded Goods and Commodities, 1550-1820* (2007). URL: <http://www.british-history.ac.uk/report.aspx?compid=58752> 13 March 2011. For details on the rise of the pottery industry in the early eighteenth century see Berg, *Luxury and Pleasure*, 130.

<sup>60</sup> Wellcome, WMS 3039, f. 51.

Reminders to stir ingredients were useful to readers as stirring ensured the ingredients were combined thoroughly and heated evenly to prevent burning. Skillets were additional cooking tools used in three percent of Jenner's recipes (Table 2.1). This number is low compared to more generic recipe collections that cooked ingredients and suggests further that Jenner focused on distillation equipment. An example of the use of a skillet is in a recipe to make a poultice against the King's Evil or scrofula: "mix [the ingredients] well together & just Scald it & Pour it out of ye Skillet."<sup>61</sup> In general, ingredients were added to a skillet and left to simmer over a fire.

The technique of measuring was important for precision and efficacy, and is further illustrative of the experimental nature of recipe collections. Although the word "measure" is not used in Jenner's manuscript, her recipes are full of indicators of ingredient quantities. With few exceptions, measurement was integral to Jenner's recipes. Measurements were given for both preparation and administration, but for this study I focus only on those used in preparing medicine. The vast majority of ingredient quantities were given in units of measurement used by apothecaries. For dry ingredients, measurements of pounds, ounces, scruples, and grains were used. Other dry measurements included pecks and handfuls, like in the recipes, "Angelica water very Good", where it called for a peck of damask roses, four handfuls of angelica stalks, and four ounces of [angelica] roots.<sup>62</sup> Liquid ingredients were given in gallons, quarts, spoonfuls, drams, and drops. One recipe for melancholy called for a pint of "ye juice of Pippins or Queen Apples" and "4 drams of Cochinele [sic]".<sup>63</sup> Occasionally, recipes used descriptive measurements like "a few", "some" or in the case of a recipe for poppy water, "put in as many Poppies As will make it of A Claret Colour or Such A Colour as you wld have it".<sup>64</sup> Even the simplest recipes in

---

<sup>61</sup> Wellcome, WMS 3039, f. 46.

<sup>62</sup> Ibid., f. 3.

<sup>63</sup> Ibid., f. 14.

<sup>64</sup> Ibid., f. 7.

Jenner's collection, which required pre-made ingredients, provided measurements to ensure the remedy was prepared and correctly.

In the miscellaneous equipment category, a stone mortar was used to grind or pulverise ingredients, like in the recipe "A Conserve for A Cough of the Lungs" where raisins and sugar candy were ground together.<sup>65</sup> While stone mortars were only mentioned in three percent of the recipes, eleven of Jenner's recipes mentioned grinding ingredients into powders and the technique of bruising herbs was used in thirteen recipes (Table 2.1 and Figure 2.2). Ensuring that ingredients were ground properly would have been crucial for the efficacy of the recipe as a smaller surface area affects the absorption rate and molecular chemistry when cooking and distilling – though contemporaries would not have understood the process in these terms. Also defined as miscellaneous, equipment strainers including filtering papers, muslin, cotton jelly bags, and sarsnet (silk) bags were used to steep herbs, strain ingredients, and prepare syrups (Table 2.1). Although housewives often used these tools to make jellies and other food items, they were also used by chemists and apothecaries for separating materials and should not be viewed as feminized or exclusively household implements. Paper was particularly useful in the household as it was used to strain ingredients, seal containers and distillation equipment, and it was used in first aid.<sup>66</sup> Sarsnet bags were used regularly to steep herbal ingredients and in Jenner's collection it is cited once in a recipe for Palsy water from a Dr. Nath. Ingredients were hung submerged in water for six weeks in a closed vessel so that "none of ye Strength brake forth".<sup>67</sup> Straining mixtures through a cloth or sieve was mentioned thirty-five times in Jenner's recipes. To make a Lip Salve, for instance, the ingredients were strained through muslin into a

---

<sup>65</sup> Wellcome, WMS 3039, f. 24.

<sup>66</sup> Stobart, "The Making of Domestic Medicine", 180.

<sup>67</sup> Wellcome, WMS 3039, f. 5.



china cup.<sup>68</sup> As well, the technique of infusing herbs was used in the collection nine times and steeping herbs was cited seven times (Figure 2.2). In order to distil ingredients successfully, herbs often needed to be steeped first to concentrate their oils. Thus, steeping equipment was important to the distillation process and Jenner's collection emphasized distillation equipment, the most specialized instruments found in the kitchen.<sup>69</sup>

Former studies note that until the mid-seventeenth century the majority of manuscript recipe collections referenced stills.<sup>70</sup> Yet, even into the eighteenth century, stills remained important tools in many recipe collections. As previously discussed, these chemical apparatuses were owned and operated by men and women from various classes and could range considerably in expense.<sup>71</sup> A total of sixteen percent of Jenner's recipes cited the use of stills (Table 2.1). In addition, the technique of distilling is used in nineteen of Jenner's recipes, whether or not she specifically stated an apparatus (Figure 2.2). In the eighteenth century, the two most common types of distillation tools were hot stills, or alembics, and cold stills, also known as common stills. An alembic— a tool of tenth-century Arabic origin and used in Europe by the mid-fourteenth century – consisted of a gourd-shaped vessel containing the substance to be distilled with a cap on top and a beak or nozzle that carried vapours to a receiver, where they condensed. Eighteenth-century alembics were usually made of copper but glass and earthen styles were also used, particularly when submerged in a water bath also known as a bain-marie.<sup>72</sup> An alembic (spelt limbeck) was used in six of Jenner's recipes and a cold still was used in sixteen. A cold still, or common still, was a conical vessel with a spout at the bottom. It was heated over a

---

<sup>68</sup> Wellcome, WMS 3039, f. 53.

<sup>69</sup> For a detailed history of distillation see: R.J. Forbes, *A Short History of the Art of Distillation: From the Beginnings up to the Death of Cellier Blumenthal* (Leiden: E.J. Brill, 1970); Bruce T. Moran, *Distilling Knowledge: Alchemy, Chemistry and the Scientific Revolution* (Harvard: Harvard University Press, 2006).

<sup>70</sup> Leong, "Medical Recipe Collections", 107.

<sup>71</sup> For sample inventories of stills from the seventeenth century, see Stobart, "The Making of Domestic Medicine", 312.

<sup>72</sup> Cooper, *The Complete Distiller*, 29.

furnace and as the steam rose, it condensed through cooling of the still head with a wet cloth.

The liquid then dripped down the spout into a receiver.<sup>73</sup>

Jenner used alembic distillation in her version of the complex recipe “Cinnamon Water m.w. [my way]”. The distiller was to “infuse 3 or 4 days Close Covered; yn Add to it 6 quarts of good Brandy or wine, Put it in your Limbeck with A gallon of fair water just give it A Heat; ye next day draw it off w<sup>th</sup> A moderate fire; Sweeten it as you Please.”<sup>74</sup> As well, a cold still was used in Jenner’s recipe “The Fever Water” where the ingredients were to “lye in Steep 2 days; yn distil ym in A Cold Still, keep ye first water”, meaning the recipe only required one distillation.<sup>75</sup> Jenner’s interest in distillation is evident in her recipes. Personalized recipes, as in the above example of “Cinnamon Water m.w.”, show that Jenner not only owned an alembic or a cold still, but had enough knowledge of them to modify recipes. This selective expertise suggests Jenner was doing more than compiling medicinal recipes, she was practicing domestic chemistry.

#### “All Sorts of Cordials”: Distillation in Print Collections

Distillation was not a component of medicine that the majority of English used daily because it was costly, time consuming, and required significant expertise and dedication. Out of all the printed medicinal treatises and household guides, comparatively few specialized in distillation. Yet, when used for medicinal purposes, this chemical process was still part of a larger tradition in preserving household health and subsequently, the nation’s wellbeing. Distillation was a highly specialized and finicky process. Overheating a still was a common problem and the herbal ingredients could burn, or the contents could boil over. Cold stills worked best with herbal oils which have high boiling points, compared to alcoholic based waters which require lower and more precise temperature control. Cooper discussed the required skill

---

<sup>73</sup> Wilson, *The Country House Kitchen*, 132.

<sup>74</sup> Wellcome, WMS 3039, f. 10.

<sup>75</sup> *Ibid.*, f. 11.

needed to handle complex distillation equipment in *The Complete Distiller* emphasizing that: “If the Fire be too fierce, the plant will stop up the pipe of the still-head; and, consequently, the rising vapour finding no passage, will blow off the still-head, and throw boiling liquor about the still-house, so as to do a great deal of mischief.”<sup>76</sup> Powdered ingredients were noted to cause over-boiling and cinnamon water was particularly difficult to prepare.<sup>77</sup> In his seventeenth-century print collection *The English Housewife*, Gervase Markham recommended that when making cinnamon water, “you must carefully look to it that it boil not over hastily, and attend it with cold wet cloths to cool the top of the still if the water should offer to boil too hastily.”<sup>78</sup> The maintenance and storage of stills was also imperative to the distillation process. Cooper said that if a cold still was sealed properly and stored in a cool location, the waters produced would “retain their virtues for a year” but if negligently kept, “their extremely volatile spirit secretly flies off, and leaves the water vapid”.<sup>79</sup>

Clear and precise instructions were consequently important for safety and success in distillation. A recipe was not useful or trustworthy to a housewife if she did not understand the correct procedures and did not use the proper equipment for its creation. One of Markham’s recipes for the popular alcoholic solution Aqua Vitae –“water of life” – was particularly detailed to ensure that the still was not overheated and that the remedy was not too strong:

put all [the ingredients] together into your stilling-pot closed covered with rye paste, and make a soft fire under your pot, and as the head of the limbeck heateth, draw out your hot water and put in cold, keeping the head of your limbeck still with cold water, but see your fire be not too rash at the first, but let your water come at leisure, and take heed unto your stilling that your water change not white, for it is not so strong as the first draught is<sup>80</sup>

---

<sup>76</sup> Cooper, *The Complete Distiller*, 117.

<sup>77</sup> Wilson, *The Country House Kitchen*, 134.

<sup>78</sup> Markham, *The English Housewife*, 128.

<sup>79</sup> Cooper, *The Complete Distiller*, 111.

<sup>80</sup> Markham, *The English Housewife*, 126-127.

Furthermore, at the end of his distillation recipes, Markham recommended in which months or seasons a housewife should harvest her herbs for “most in strength and of the greatest virtue” for medicines.<sup>81</sup> These extra instructions were undoubtedly useful for ensuring that remedies were prepared in the most effective way possible.

One of Newington’s most in-depth recipes was a common remedy for consumption involving snails. Jenner’s manuscript had a similar recipe, and although the ingredients differed, the preparation was almost identical.<sup>82</sup> In Newington’s recipe, “A Snayle Watter good in a Consumption or Jaundis to clear the Skin or Revive ye Spirits” a peck of snails were to be washed in beer. Then, the snails were roasted in a hole made in the charcoal of a fire and afterwards, beaten in a mortar. The “limbeck” was then placed on top of a “clean iron pot” and earthworms washed in white wine were added alongside a lengthy list of herbs and strong ale. The reader was advised that “you must not stir it after these last things are in [the pot]” and that the “limbeck” should be sealed with rye paste. Finally, Newington recommended feeding the snails with “sellandrine [sic] and barberry leaves and bough, and then wash them in new milk fower [sic] times” to clean them.<sup>83</sup> Comprehensive instructions and advice on cleaning snails a particular way was practical for making sure the snail’s intestines were not mistakenly included. More broadly, these instructions reveal that clear procedure was important for the usefulness of the recipes, especially if it was a more complicated distillation recipe.

Eliza Smith’s *The Compleat Housewife* also used detailed instructions and had a comparable assortment of equipment as Jenner’s manuscript.<sup>84</sup> This section is intended to highlight the similarities in equipment between the two collections and explore the ways in

---

<sup>81</sup> Markham, *The English Housewife*, 132.

<sup>82</sup> Wellcome, WMS 3039, f. 12.

<sup>83</sup> Newington, *A Butler’s Recipe Book*, 31.

<sup>84</sup> The sub-title of this section is in reference to Eliza Smith’s distillation chapter, “All Sorts of Cordial Waters”.

which techniques conveyed in print could parallel those in a manuscript. Similar to Jenner's manuscript, the seventy recipes in the cordial waters chapter of *The Compleat Housewife* gave some direction on preparing the recipes, but did not necessarily list equipment. Again, these were more basic waters that required boiling or steeping ingredients in alcohol. Out of all the types of equipment, stills and alembics were the most frequently mentioned. This is not surprising as the chapter was devoted specifically to the process of distillation. Approximately forty percent of Smith's cordial water recipes called for either a cold (ordinary) still, an alembic (spelt alembick in this case), or sometimes both (Table 2.2). Moreover, distilling was the most frequently cited technique at thirty-three counts (Figure 2.3). "The Lady Allen's Water" required distillations in both a cold still and an alembic. Ingredients were to be left to "still twelve hours in a cold still with a reasonable quick fire; then put the rest of the herbs and the wine in an alembick, and distill them till all the strength is out of the herbs and wine; mix all the water in both stills together."<sup>85</sup> This particular recipe was well known and widely recorded, an indication of the popularity of trusted women's distillation recipes into the eighteenth century.

Equipment	Raw Count	% (approx.)
Cold/Ordinary Still	20	29
Glass Jar/Bottle	10	14
Alembic (spelt Alembick), Nondescript Bottle	9	13
Mortar	7	10
Cloth/Linen, Earthen Pot	6	9
Gentle Fire	5	7
Jug (earthen/well-glazed), Earthenware (various), Nondescript Pot	4	6
Pipkin, Paper, Feather (for application)	3	4
Sieve, Glass (close stopt), Gallipots, Bag (flannel), Slow fire, China cup/Dish, Hair Cloth, Kiln (for drying ingredients), Kettle, Quick Fire	2	3

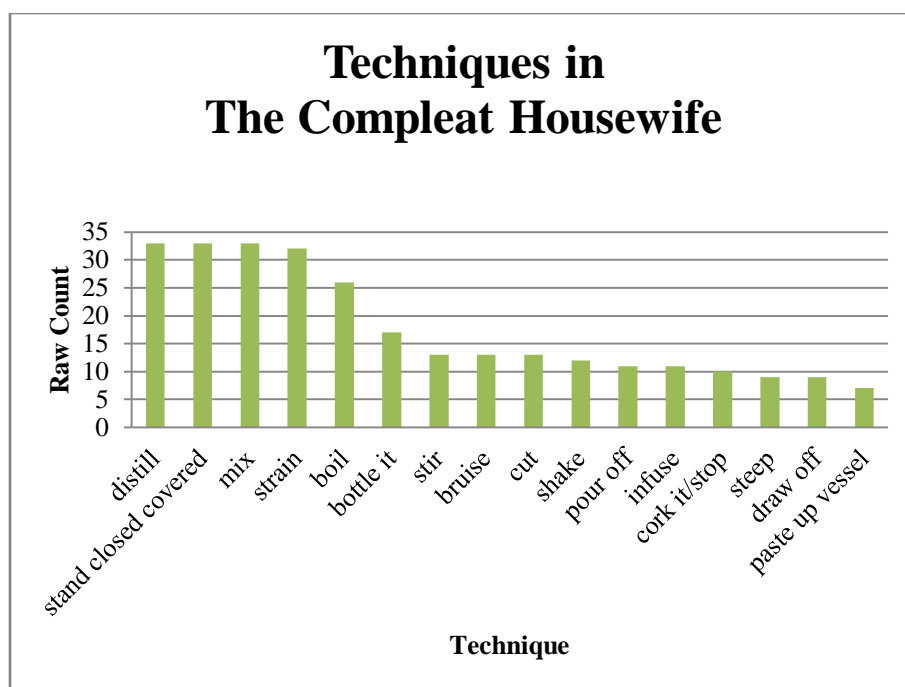
**Table 2.2: Equipment in *The Compleat Housewife's* Distillation Chapter**

<sup>85</sup> Smith, *The Compleat Housewife*, 257-258.

Fire strength was indicated throughout *The Compleat Housewife*: a gentle fire was mentioned five times and slow and quick fires were both used twice (Table 2.2). Compared to Jenner's manuscript, heating directions were included less often and in less detail in the print collection, suggesting that Jenner was meticulous when recording her distillation instructions. Storage vessels like earthen-ware and bottles appeared frequently in Smith's distillation recipes as in Jenner's. Bottles were mentioned in nineteen recipes (twenty-seven percent) and earthen-ware and pots of various sorts were listed eighteen times (twenty-six percent), along with three pipkins and two gallipots (Table 2.2). Smith's collection was overall less specific than Jenner's manuscript when describing earthen-ware, indicating only four times that a pot should be well-glazed. For storage, the technique of letting the mixture "stand closed covered" was mentioned thirty-three times, "bottle it" seventeen times, and "cork it" or "stop it" ten times (Figure 2.3). For instance, in the recipe "The Golden Cordial", both a China cup and a bottle were used to prepare the mixture. Interestingly, this recipe was a suspension of solids and liquids. To ensure that the gold flakes stayed suspended in the liquid, the recipe suggested to "cork your bottle, and tie it down close; shake it well together for two or three days, and let it stand about a fortnight; you must set the bottle so, that when it is rack'd off into other bottles, it must only be gently tilted; put into every bottle two leaves of gold cut small."<sup>86</sup> Indicating to position the bottles for storage in this way was apparently important for maintaining the proper composition of the cordial and for guaranteeing that the recipe turned out well.

---

<sup>86</sup> Smith, *The Compleat Housewife*, 261.



**Figure 2.3: Techniques in *The Compleat Housewife*'s Distillation Chapter**

Mortars for grinding and cloth and paper for straining and steeping ingredients were also cited in *The Compleat Housewife* (Table 2.2). Used in ten percent of the recipes, mortars were used almost twice as often in Smith's collection as in Jenner's, however, both cited steeping tools with comparable frequency. In one of Smith's recipes for curing kidney and bladder stones, ingredients were to be pounded "in a clean stone mortar, with a wooden pestle, till they come to a mash" and the mixture was spread into a "broad glazed earthen pan".<sup>87</sup> Bruising ingredients, often in a mortar, was recorded thirteen times (Figure 2.3). Mixing, straining, and boiling ingredients were common procedures, while techniques of stirring, cutting, and shaking were used slightly less often. Both collections called for straining ingredients in almost the same frequency however, Jenner's recipes cited boiling ingredients almost twice as often as Smith's recipes, likely because the latter's collection included non-distilling recipes as well. Infusing and steeping ingredients was stated a total of nineteen times (Figure 2.3). "An excellent Snail Water"

<sup>87</sup> Smith, *The Compleat Housewife*, 286.

was one of Smith's most intricate recipes, especially the storage instructions. She advised the reader that, "it will keep good a year, and is best when made spring or fall, but it is the best when new; you must not cork up the bottles in three months, but cover them with paper".<sup>88</sup> Adding extra instructions for proper storage would have helped ensure the remedy did not spoil and that it remained as efficacious as possible. Printed collections with sections on distillation such as Smith's cited equipment and used techniques analogous to those Jenner used, hinting that Jenner's manuscript reflects a tradition of distillation as a women's household activity. Smith, however, included distillation recipes within a larger collection of culinary and household advice indicating that for this print collection, distillation was only one aspect of household practice. Jenner's manuscript differs in that she devoted her entire collecting to distillation and medicinal remedies and this choice is suggestive of a refined expertise.

### Conclusion

Eighteenth-century collections fall within a transitional period where curiosity and inquiry into natural philosophy was popular. As access to medical treatment and purchased remedies became commonplace, a continued interest in distillation within recipe collections alludes to experimental practice. Eighteenth-century printed texts such as household guides made distilling techniques accessible to literate households. Often intended for a female readership interested in charitable work, these guides reflect the role domestic chemistry could play in maintaining the health and order of the home and state. Gradually, distillation became more specialized and treatises like Cooper's stressed that distillation recipes required aptitude, interest, and patience; only the scientifically skilled could be distillers. It was the combination of Jenner's aptitude, intuition and interest in distillation that made her a domestic chemist.

---

<sup>88</sup> Smith, *The Compleat Housewife*, 273.



A recipe compiler needed substantial knowledge to navigate the kitchen successfully and prepare medicinal remedies effectively. This knowledge emerges clearly in Jenner's manuscript given the scope and complexity of her equipment. Jenner's collection, when compared to Smith's *The Compleat Housewife*, highlights what equipment was typically available in middling to upper class eighteenth-century homes and the importance of clear instructions in manuscript and print collections. Many of the tools we perceive to be common kitchen utensils were in fact a crucial part of early modern medicine and experimentation. When used to prepare medicine, everyday implements and chemical apparatuses were important components of preserving household health and, more widely, social order. To recognize the scientific history of these household tools, we need to consider the kitchen (and still room) as a non-feminized and multi-purpose space. Only then can we fully appreciate the contribution men and women made to science through their medicinal creations.

Recipe collections are further evidence of the expanding availability of consumer goods, such as earthen-ware in upper and middling class households. As such, we can situate recipe collections in a broader social context of economic expansion and consumerism. Alongside equipment, the ingredients used to make medicine were inherently tied to transactions within the medical marketplace and the import and export of goods. Whether for experiment, or medical need, the high rate of consumption of *materia medica* found in recipe collections had substantial implications for the economy. In an era seemingly paranoid about illness and frenzied by consumerism, the household was influential in early imperial endeavours for commodity monopolies and scientific exploration for newer exotic medical ingredients, the focus of my next chapter.

### Chapter Three

#### Ingredients for Empire: Recipe Collections as Sources of Consumerism and Early Imperialism

The range of ingredients used in eighteenth-century households could be extensive. In the eighteenth century, there was a remarkable increase in the use of synthetic drugs and chemical nostrums became popular alternatives to traditional herbal remedies. Collectors often incorporated these new chemical remedies, creating hybrid collections of novel and time-tested recipes. Collections accentuate how many everyday commodities were treated as medicine, adding another dimension when considering the rise of consumerism. A common herb, foodstuff, or widely available spice had significant value in society, in part, because of its multi-functionality. Consuming medicine was a part of the daily lives of elite, middling, and poor sufferers alike. By the eighteenth century, purchased ingredients and medicine were not restricted to the gentry.<sup>1</sup> Avoiding expensive doctor's fees was a sufferer's ultimate goal and self-treatment with purchased or collected ingredients was an overall more economic – and often less worrisome – option.<sup>2</sup> Jenner's manuscript offers a focused look at the types of ingredients consumed as medicine in the home and, although her collection is by no means a standard to follow, the majority of the ingredients she cites were included in other manuscript and print recipe collections. By investigating what ingredients were commonly used in domestic medicine, and in what quantities, we can understand better the rate of consumption and thus a sense of the demand for a commodity at a social level.

---

<sup>1</sup> Steven King argues that, by the eighteenth-century, only a few northern rural regions of Britain were still isolated from the medical marketplace. With improved infrastructure and rapidly growing urban centres, drugs were more accessible and their consumption increased significantly. Steven King, "Accessing Drugs in Eighteenth-Century Regions" in *From Physick to Pharmacology: Five Hundred Years of British Drug Retailing*, ed. Louise Hill Curth (Aldershot: Ashgate Publishing, 2006), pp. 49-78.

<sup>2</sup> See chapter one for a discussion of distrust in the medical marketplace.

The desire for commercial monopolies was a main driving force in the formation of the British Empire. The marketplace was a site of knowledge exchange closely tied to a rise in consumerism and botanical exploration in the early imperial era, influencing the use of ingredients in the home. Situating recipe collections within a broader context of consumerism and empire reveals how imported and local ingredients were used in domestic medicine and the larger implications of this use in the context of socio-economic exchanges. Domestic medicine helped preserve the health of households. Healthy households meant a healthy English nation, which subsequently encouraged the strengthening and expansion of the British Empire. But, how did domestic chemistry factor in to economics and empire? Medicine was a fundamental part of society and ingredients played a central role as they connected the household to the economy. Like equipment, many ingredients were multi-purpose, appearing in food, medicines, and even experiments. Therefore, at the most basic level of supplies, recipes created out of scientific interest engaged in economic transactions. At a deeper level, the authoring and use of collections specializing in distillation were part of a larger scientific culture that dominated eighteenth-century social thought. Inquiry into natural knowledge within elite homes – particularly botany – had an important influence on economic policies and imperial development, driving the demand for ingredients and encouraging commodity development and the search for new medicaments. Considering recipe collections as sources of science creates a valuable opportunity for historians to evaluate the role of domestic activities in empire and scientific exploration.

How ingredients were obtained and distributed within the consumer marketplace reflected their value, utility, and identity. Ingredients carried value according to their origin. Many ingredients, or *materia medica*, were available locally in the countryside or kitchen garden and at the apothecary or grocer, but other exotic ingredients were specialty imports. It was

thought by many contemporaries, such as Nicholas Culpeper, that imported exotics were morally, medically, and economically dangerous because the locations where they originated from were often mysterious and not trustworthy.<sup>3</sup> Alix Cooper argues that there was a dichotomy of perceptions of plants during the early modern era: spices from the Far East, for instance, were considered mysterious, whereas kitchen garden and roadside herbs were humble.<sup>4</sup> This perception of plant identities transferred to Europeans as the spread of empires created a need for them to construct their “own sense of place in the world”.<sup>5</sup> Kim Hall suggests, on the other hand, that exotic goods lost their foreignness when they were incorporated into the home.<sup>6</sup> Although many contemporaries shared Culpeper’s qualms about exotic imports, many recipe collectors – Jenner included – did not.

Culpeper’s herbal descriptions from his *Complete Herbal*, *The English Physician Enlarged*, and the *Pharmacopoeia Londinensis* were none the less useful to recipe compilers because they conveyed ingredients’ medicinal values and advised where herbs could be obtained.<sup>7</sup> Culpeper’s “known to all” plants did not need to be collected from hedgerows, but could be cultivated in the kitchen garden. Urban recipe compilers might be as familiar with local herbs as country residents, especially as many of the urban elite had country estates.<sup>8</sup> Local herbs were certainly still valued as medicine, but an aversion to imports was less feasible in a period

---

<sup>3</sup> Several historians have discussed Culpeper’s aversion to exotics, see: Alix Cooper, *Inventing the Indigenous: Local Knowledge and Natural History in Early Modern Europe* (Cambridge: Cambridge University Press, 2007), 22; Mary E. Fissell, *Patients, Power and the Poor in Eighteenth Century Bristol* (Cambridge: Cambridge University Press, 1991), 40.

<sup>4</sup> Cooper, *Inventing the Indigenous*, 5.

<sup>5</sup> Ibid., 9.

<sup>6</sup> Kim Hall, “Culinary Space, Colonial Spaces: The Gendering of Sugar in the Seventeenth Century” in *Feminist Readings of Early Modern Culture: Emerging Subjects*, eds. Valerie Traub, M. Lindsay Kaplan and Dymphna Callaghan (New York: Cambridge University Press, 1996), 182.

<sup>7</sup> Nicholas Culpeper, *Culpeper’s English Physician; and complete herbal* (London, 1789); *Culpeper’s Complete Herbal: A Book of Natural Remedies for Ancient Ills* (Hertfordshire: Wordsworth Editions Ltd, 1995); Nicholas Culpeper, *The English physician enlarged* (London, 1708); Nicholas Culpeper, *Pharmacopoeia Londinensis: or, the London dispensatory* (London, 1718). This work was originally translated by Culpeper from Latin and re-published in 1649.

<sup>8</sup> Fissell, *Patients, Power and the Poor*, 42.

noted for accessibility to worldwide commodities. As such, Leong argues that “the image of household medicine as being [solely] from the garden to the kitchen is perhaps an over-sentimental one.”<sup>9</sup> I add that it is over-simplified, failing to account for the complex systems of trade and distribution of materials in the eighteenth century.<sup>10</sup>

Botany was a popular leisure pursuit and, despite the infiltration of synthetic drugs, it remained a key component in recipe collecting. For the elite, botany was a means of solidifying one’s “genteel accomplishments”.<sup>11</sup> Physician Thomas Beddoes, for instance, emphasized that botany, gardening, woodworking, and experimental chemistry were more productive than sitting in the parlour.<sup>12</sup> The botanical expertise found in many eighteenth-century collections demonstrated an interest, not necessarily a medical need. It was increasingly common for a sufferer to purchase medicine rather than prepare a recipe that took hours or days to make and required extensive cultivation, collection, and distillation of botanicals.<sup>13</sup> Recipe collections like Jenner’s, that emphasized botanicals and distillation, can be seen as evidence of a shift in recipe collecting to a hobby from necessity. The local flora of England remained important in domestic activities, but exotic imports also played a major role. Pertaining to colonial expansion and botanical exploration, Londa Schiebinger eloquently states: “Plants seldom figure in the grand narratives of war, peace, or even everyday life in proportion to their importance to humans. Yet

---

<sup>9</sup> Elaine Leong, “Making Medicines in the Early Modern Household,” *Bull. Hist. Med.* 82 (2008): 105.

<sup>10</sup> Patrick Wallis has recently argued that medical ingredient imports increased at the highest rate in the seventeenth century and that the eighteenth century should be considered an era of sustained consumption at a high rate. Patrick Wallis, “Exotic Drugs and English Medicine: England’s Drug Trade, c. 1550-c. 1800,” *Social History of Medicine* (2011) [forthcoming].

<sup>11</sup> Roy Porter, *Doctor of Society: Thomas Beddoes and the sick trade in late-eighteenth century Enlightenment* (London: Routledge, 1992), 104.

<sup>12</sup> *Ibid.*

<sup>13</sup> Anne Stobart, “The Making of Domestic Medicine: Gender, Self-Help and Therapeutic Determination in Household Healthcare in South-West England in the Late Seventeenth Century” (Ph. D. thesis, University of Middlesex, 2008), 1; Dorothy Porter and Roy Porter, *Patient’s Progress: Doctors and Doctoring in Eighteenth-century England* (Stanford: Stanford University Press, 1989), 49.

they are significant natural and cultural artefacts, often at the center of high intrigue.”<sup>14</sup> Many of the *materia medica* used in recipe collections were not indigenous to the British Isles. The consumption of exotic imports in the home, especially for medical use, was a driving force for further botanical exploration and for the mass cultivation of products like sugar cane, thus contributing to early imperialism.<sup>15</sup> Moreover, the growing interest in botany encouraged the establishment of expansive botanical gardens which were storerooms for medicinal plants as well as locations of leisure.<sup>16</sup>

Troy Bickman observes that in the eighteenth century certain foods carried national meaning beyond class, gender, and geographic boundaries. Many of these commodities were simultaneously medical ingredients and symbols of empire in Britons’ daily routines.<sup>17</sup> Sugar, the most frequently cited ingredient in Jenner’s collection, is one such commodity.<sup>18</sup> Sugar’s high rate of use in medicine provides an idea of consumption and demand at the domestic level. Significantly, the use of sugar in medicine was influential in the consumer revolution – an influence often overlooked in favour of sugar’s use in luxury items like tea. Sugar’s consumption, like other commodities, is often analyzed from a broad perspective, such as quantitative consumption in the metropolis or the effects of sugar cane cultivation on slavery. Sidney Mintz, however, argues that we need to look at the “culturally usable” characteristics of

---

<sup>14</sup> Londa Schiebinger, *Plants and Empire: Colonial Bioprospecting in the Atlantic World* (Cambridge MA: Harvard University Press, 2004), 3.

<sup>15</sup> For a discussion of botanical exploration and medicine see: Schiebinger, *Plants and Empire*; Londa Schiebinger and Claudia Swan eds. *Colonial Botany: Science, Commerce, and Politics in the Early Modern World* (Philadelphia: University of Pennsylvania Press, 2005).

<sup>16</sup> See Richard Drayton, *Nature’s Government: Science, Imperial Britain, and the ‘Improvement’ of the World* (Yale: Yale University Press, 2000).

<sup>17</sup> Troy Bickman, “Eating the Empire: Intersections of Food, Cookery and Imperialism in Eighteenth-Century Britain,” *Past and Present* 198 (Feb. 2008): 72-73. As a point of clarification, I use the term ‘Britons’ when describing recipe collections in a larger context not specific to English practices and when discussing the British Empire.

<sup>18</sup> Sugar was also the most frequently cited ingredient in other print and manuscript collections. See, Elaine Leong, “Medical Recipe Collections in Seventeenth-century England: Knowledge, Text and Gender” (D. Phil. thesis, University of Oxford, 2005), 102; Jennifer K. Stine, “Opening Closets: The Discovery of Household Medicine in Early Modern England” (Ph. D. dissertation, Stanford University, 1996), 31.

luxuries, like sugar, for their meaning to be revealed.<sup>19</sup> One approach is to look at the gender and class implications of consumption. Hall argues that sugar's status as a "foreign luxury" and increasingly an everyday commodity "reveals the importance of women and gender ideologies" because it was produced and consumed by women.<sup>20</sup> Moreover, in the early eighteenth century, sugar was only emerging as a sweetener and food staple that the majority of households could afford.<sup>21</sup> Thus, although large-scale statistics and analyses are important for understanding the history of consumption, it is also useful to look more closely at the domestic level to see how and why commodities were consumed, by whom, and in what quantities.

In this chapter, I compare two recipe collections to show how the ingredients within them often differed considerably according to the collection's intended purpose. Jenner's manuscript is compared to an example of a printed recipe collection, Volume I of Sir Robert Boyle's *Medicinal Experiments*.<sup>22</sup> The key difference between these two collections is that Boyle's remedies used one-step instructions, essentially adding a pre-prepared medicine to a liquid for administration. In contrast, Jenner's recipes were multi-step, requiring many ingredients, particularly herbs. Boyle's recipes illustrate that collected herbs were not promoted by Boyle, a scientist and medicinal recipe enthusiast, for use by the rural poor. It appears that purchased ingredients from the apothecary and grocer were endorsed to treat illness because they were more convenient.<sup>23</sup>

---

<sup>19</sup> Sidney Mintz, *Sweetness and Power: The Place of Sugar in Modern History* (New York: Viking, 1985), 96.

<sup>20</sup> Hall, "Culinary Space, Colonial Spaces", 169.

<sup>21</sup> Mintz, *Sweetness and Power*, 95. For prices of sugar in family account books see: Stobart, "The Making of Domestic Medicine", especially page 102.

<sup>22</sup> Sir Robert Boyle. *Medicinal experiments: or, a collection of choice and safe remedies* (London, 1703). The first edition was published posthumously in 1662 and it was re-printed until 1731.

<sup>23</sup> Although the poor had restricted access to purchased medicine, Patrick Wallis emphasizes that the gentry and the majority of the middling class did have access to purchased medicine and used it. Patrick Wallis, "Apothecaries and the Consumption and Retailing of Medicines in Early Modern London" in *From Physick to Pharmacology: Five Hundred Years of British Drug Retailing*, ed. Louise Hill Curth (Aldershot: Ashgate Publishing, 2006), 21; Roy Porter noted that medications were becoming more appealing than advice or regimens in the growing consumer society. Roy Porter, *Quacks, Fakers, and Charlatans in Medicine* (Stroud: Tempus, 2003), 71.

Following other recipe collection historians, my analysis of ingredients is quantitative and qualitative, using the method of deconstructing recipes to analyze ingredients established by Smith and Stine.<sup>24</sup> Philip Teigen categorized plants in a way that the plant's structures (seeds, leaves, and roots) were counted as the same simple (base ingredient) but were counted in different occurrences.<sup>25</sup> Stine also used a similar methodology in her extensive analysis of manuscript *materia medica*.<sup>26</sup> I have borrowed Teigen's and Stine's approach for herbal ingredients, but I do not follow their rationale for animal products where, for example, chicken meat, eggs and fat are all categorized under "chicken". As Leong has pointed out, individual animal parts were contemporaneously used in completely different contexts and were therefore valued as separate medicines.<sup>27</sup> Finally, as Stobart observes, there is no way to compute accurately an average for the frequency of ingredients because some were only used once or twice in the whole collection and others were used often.<sup>28</sup> As such, I employ a raw count approach and translate those counts into percentages. Analyzing Jenner's most popular ingredients shows what she would have likely had on hand and which ingredients were the most pervasive commodities. The types and quantities of ingredients Jenner cited indicated her elite social status as many of the ingredients she cites were expensive. Ingredients also reflect the types of ailments to which Jenner tailored her recipe collection. Jenner's most frequently cited ingredients are categorized loosely into herbal or plant-based ingredients and non-herbal ingredients. In the herbal category, there were both local ingredients (indigenous and introduced species) and others that would have been imported and widely available. Some of the ingredients

---

<sup>24</sup> Lisa Wynne Smith, "Women's Health Care in England and France (1650--1775)" (Ph. D. thesis, University of Essex, 2002), chapter 2; Jennifer K. Stine, "Opening Closets: The Discovery of Household Medicine in Early Modern England" (Ph. D. dissertation, Stanford University, 1996), chapter 1.

<sup>25</sup> Philip Teigen, "This Sea of Simples: The Materia Medica in Three Early Receipt Books," *Pharmacy in History* 22 no. 3(1980):104-108

<sup>26</sup> Stine, "Opening Closets", 28-38.

<sup>27</sup> Leong, "Medicinal Recipe Collections", 100.

<sup>28</sup> Stobart, "The Making of Domestic Medicine", 31.



listed in the non-herbal category are derived from plants like sugar and wine but, as they were not used in their natural form, I classify them as non-herbal.

Trust within domestic medicine and the medical marketplace has been the framework throughout this thesis. Ingredients also needed to be trusted – the most obvious reason being that many were toxic and could further complicate an illness if misused, or even cause death.<sup>29</sup> A further reason ingredients needed to be trusted is that they were obtained from a variety of locales and individuals. Apothecaries were sometimes labelled as having questionable credibility. Moreover, as Patrick Wallis notes, “in the apothecaries’ and druggists’ hands, these commonplace materials somehow also became expensive and exclusive” suggesting that from whom and where ingredients were purchased was important in the trustworthiness of ingredients used to treat sickness.<sup>30</sup>

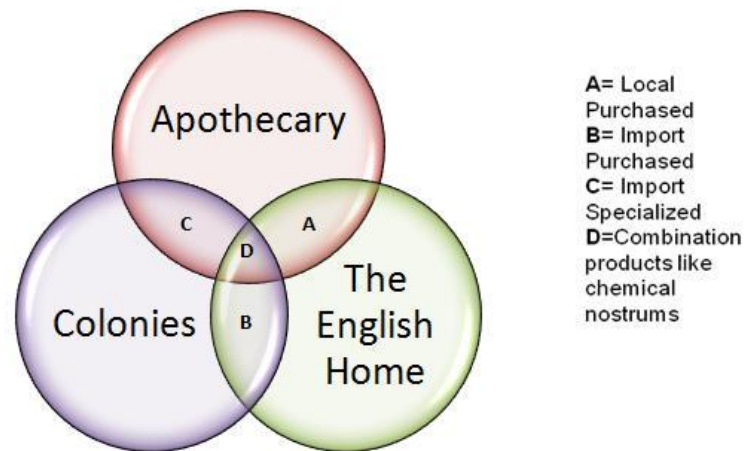
I have constructed a diagram to explain the relationship between production and consumption within the colonies and the metropolis. It illustrates how the medical marketplace and the household were situated within the broader economy and this is important for creating a holistic view of consumption before I analyze the ingredients consumed (Figure 3.1). In this schematic, there are three key spheres from where ingredients originated.<sup>31</sup> The English Home sphere contains ingredients that were found either in the kitchen garden or in the countryside – no purchase necessary. The Apothecary sphere represents both local and imported ingredients that were sold either in their natural form, or combined into a chemical preparation. And, the Colonies sphere is loosely categorized as containing ingredients that were imported to England.

---

<sup>29</sup> Patrick Wallis, “Consumption, Retailing and Medicine in Early Modern London.” *Economic History Review* 61 no.1 (2008): 26.

<sup>30</sup> Wallis, “Consumption, Retailing and Medicine”, 43; Lucinda Beier notes that sufferers were often willing to buy remedies despite being suspicious of manipulation. Lucinda McCray Beier, *Sufferers & Healers: the Experience of Illness in Seventeenth-century England* (New York: Routledge & Kegan Paul, 1987), 180.

<sup>31</sup> Stobart has a similar schematic with five origins of medical supplies: grocer, apothecary, herb women, gifts, household and countryside. Stobart, “The Making of Domestic Medicine”, 109.



**Figure 3.1 Production and Consumption in the Medical Marketplace**

The overlaps in this figure illustrate the complexities in the nature and structure of the marketplace. Overlap A is ingredients originating locally, but available at the apothecary and purchased out of convenience. B could be considered a grocer or haberdasher. These commodities were not specialized enough to be only available at the apothecary, but were still imported: tropical fruits, sugar, common spices, and imported wines, for example. Overlap C includes ingredients that were more medical, but still imported and usually only available at the apothecary. Finally, the central nexus D is where both imported and local ingredients were combined at the apothecary to produce chemical nostrums.<sup>32</sup> The relationship between production and consumption, viewed in the context of the English home, emphasizes the role that Britons played in economics and empire and the social meaning behind individual products consumed domestically, particularly as medicine.

<sup>32</sup> Wallis's findings also indicate that local ingredients were combined or substituted with chemical compounds and simples. Wallis, "Apothecaries and the Consumption and Retailing of Medicines", 16.

## The Everyday and the Exotic: Ingredients for Medical Experimentation

Examining the ingredients in Jenner's manuscript, the questions I address are: what ingredients were used in domestic medicine, how were they used, and in what quantities? Jenner's ninety-six page collection contains 135 recipes. In total, her collection called for over 300 different ingredients, which were cited cumulatively 690 times, and almost twice as many herbal ingredients as non-herbal. In terms of the quantities used, cheap and common herbal ingredients were usually measured in handfuls or ounces. Exotic, expensive, and usually more toxic ingredients were purchased and used in smaller quantities, like drams or scruples.<sup>33</sup> Generally, ingredients appeared at the beginning of a recipe and, although the number of ingredients varied, sometimes the list was lengthy.<sup>34</sup> A recipe compiler needed to be devoted and passionate about preparing remedies to justify navigating these seemingly endless 'shopping lists'. Being ingredient savvy also allowed a recipe compiler to control the quality of the ingredients she used, and to modify recipes according to what was available and to her preferred taste.<sup>35</sup> Finally, establishing trust in both the retailers who sold ingredients and her own botanical expertise helped a compiler avoid bad taste, inefficacy, consumer manipulation, and even poisoning.

An examination of Jenner's ingredients would not be complete without a brief look at the 'ordinary extraordinary' of the *materia medica*. The more unusual ingredients used to treat common ailments illustrate the diversity of items interpreted as medicine in the eighteenth century. By unusual, I mean ingredients used infrequently and they are peculiar by modern Western standards. Jenner's recipes for treating convulsions had particularly unusual and diverse

---

<sup>33</sup> Exact weights and measures were characteristic of Paracelsian medicine.

<sup>34</sup> This is standard in other collections: see Leong, "Medicinal Recipe Collections", 100. In Jenner's manuscript, recipes attributed to physicians were generally longer, more complex, and often had more ingredients.

<sup>35</sup> Leong, "Making Medicines", 165.

ingredients and comprised four percent of her recipes, indicating that either Jenner or a family member suffered from seizures or other shaking fits. One convulsion recipe involved the use of mouse blood, while another called for peonies added to black soap and spread on the soles of the feet.<sup>36</sup> The most curious of Jenner's recipes included:

The Cleaning of A young Elt Sow After ye first Pig:ing, let it not touch ye ground; dry it well with A Cloath then Bake it so As you may Powder it, take Holly leaves & dry ym & make ym into Powder mix two parts of this Powder with one of ye other, make it up into Pills with mithridate as large as you Can Swallow them, take 5 of ym before ye full & Change of the moon. These have not fail'd me in 100 examples for A Child you may mix ye Same quant[it]y in Piony, or Black Cherry water, or anything A Child will take<sup>37</sup>

This recipe referred to the reproductive parts of a spayed female pig after it has had its first litter and was one of Jenner's most unusual ingredients. Furthermore, the phrase "these have not fail'd me in 100 examples" indicated that Jenner may have used this remedy frequently or, if she did not alter the "me" written by the original author, at least the attributor had success with this recipe.

From acorns to zedoary, Jenner's manuscript serves as a window into her botanical knowledge. Manuscript recipe collections conveyed an assumption that the reader had a foundational knowledge of plants, largely listing what herbs to use without explaining how to identify them, or why they were useful.<sup>38</sup> It is impossible to determine Jenner's familiarity with the ingredients she recorded and her substitutes and exclusions of ingredients because her manuscript has few annotations. Analyzing Jenner's plant citations is none the less useful because it provides an estimate of what she thought could be used. More significantly, we can read her collection as an example sample set of the many herbal ingredients used in eighteenth-century medicine and indeed those used in distillation experiments.

---

<sup>36</sup> Wellcome, WMS 3029, f. 39.

<sup>37</sup> Ibid.

<sup>38</sup> Stine, "Opening Closets", 29.

Jenner's botanical knowledge is evident in the scope of plants she cited and the information she included on herbs. Although some recipes, and the botanical knowledge contained within them, were attributable to other authors, Jenner still acquired this advice when she transcribed it into her manuscript. For instance in the recipe, "The Palsy Water Dr. Nath", it was advised that the flowers had to be gathered in their proper seasons, suggesting that advanced planning was necessary for preparing the recipe and that there was a familiarity with when it was best to gather herbs and their specific parts.<sup>39</sup> Similarly, the recipe, "Poppy Water Good for Surfiet or Any Suden [sic] Sickness", suggested that the best poppies grew in barley land.<sup>40</sup> Information on identifying plants was evident in the recipe, "The Green oyntment", where it was written: "Sometimes if A forward Spring is gon[e] in May so may get it ye end of April yn, ye Green leafe is Something like A Scurvy Grass leaf & bares A yallow flower like A Crasie, its Good for ye Rickets."<sup>41</sup> Finally, another remarkably detailed recipe was "Walnut Water cal'd the water of life for its v. [virtues]" and this recipe instructed the reader to:

Beat [green walnuts] in mortar & distil ym in A Cold Still; keep yt water by it Self; yn make Another water your walnuts being gathered At midsummer; & keep yt by it Self yn make A 3d your walnuts, being gathered A 4 nights After midsummer & keep yt by it self also yn take A quart of each & mix it & distil it in A glass Still & keep very Close yt no Aire Get in nor out.<sup>42</sup>

This was clearly a time-consuming recipe, and the ripeness of the walnuts (specified to be gathered in June) was evidently important for flavour and efficacy. As these examples have indicated, a base knowledge in the local flora was imperative for creating medicinal remedies like Jenner's waters and syrups which required finesse, patience and ingenuity.

---

<sup>39</sup> Wellcome, WMS 3039, f. 5.

<sup>40</sup> Ibid., f. 8.

<sup>41</sup> Ibid., f. 50.

<sup>42</sup> Ibid., f. 14.

Plant ingredients like aniseed, borage, liquorice, and rosemary were common and collected in the kitchen garden and countryside, or purchased cheaply. As shown in Figure 3.2, aniseed and liquorice were both used frequently in Jenner's recipes (sixteen and fourteen counts respectively). Culpeper suggested that liquorice was "planted in fields and gardens, in divers places of this land, and therof good profit [was] made".<sup>43</sup> Or, if it was more convenient, liquorice and aniseed could be purchased in the early eighteenth century at around two pence per ounce.<sup>44</sup> Rosemary was listed thirteen times (ten percent) in Jenner's manuscript (Figure 3.2). This abundant herb was good for treating ailments such as cold diseases, palsies, lethargy, oral illnesses, indigestion, and eye pains.<sup>45</sup> Jenner used rosemary in many of her cordial recipes and "cure alls" such as recipes for Plague Water, Aqua Mirabilis and Black Cherry Water.<sup>46</sup> Additionally, in "Dr Burgesses water for ye Trem [trembling]: of ye Hãrt mallan [melancholy] & weakness of ye Stomach", it called for: "Rosemary and Borage flowers & Burgloss [sic] roots of each four ounces, Quinces four ounces Bruise All these & Put ym in a Quart of whit. wine & Stop ye Glass Close & Set it in ye Horse Dung for 15 dayes yn disstill it."<sup>47</sup> Borage was used in Jenner's recipes eight times and bugloss, six (Figure 3.2). These herbs had similar "heating" virtues and were said to cheer the heart and help "drooping spirits".<sup>48</sup> Aniseed, borage, liquorice and rosemary are several select examples of the many botanicals found in Jenner's manuscript. In fact, the majority of the herbal simples that Culpeper suggested should be in one's cupboards for preserving the nation's health were listed at least once in Jenner's recipes.

---

<sup>43</sup> Culpeper, *Complete Herbal*, 150.

<sup>44</sup> Stobart, "The Making of Domestic Medicine", 301.

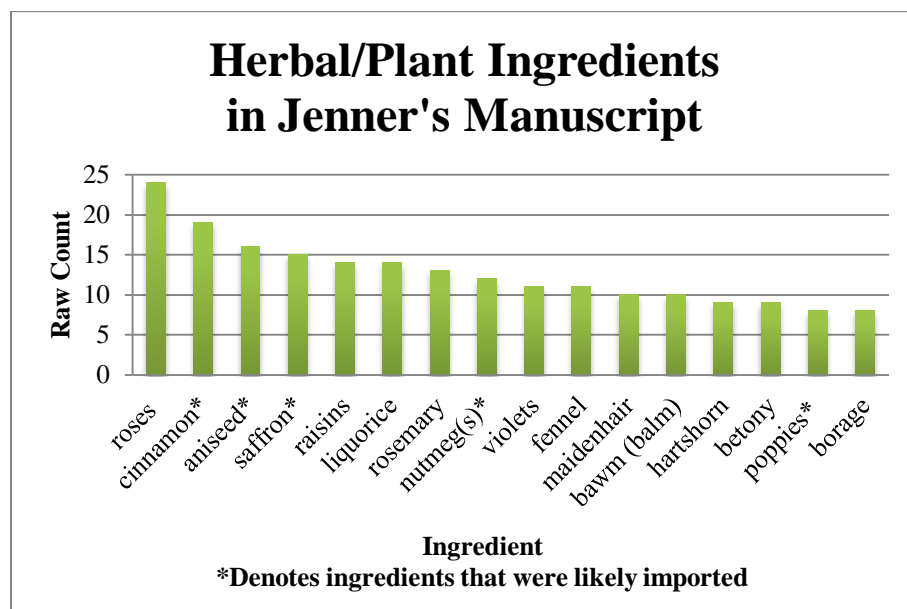
<sup>45</sup> Culpeper, *Complete Herbal*, 219.

<sup>46</sup> For more information on "cure alls" or polychrest recipes see: Leong, "Making Medicines", 153; Smith, "Women's Health Care", chapter 2.

<sup>47</sup> Wellcome, WMS 3039, f. 9.

<sup>48</sup> Culpeper, *Complete Herbal*, 310.

Jenner most frequently cited roses (twenty-four times), in eighteen percent of the recipes (Figure 3.2). This is not surprising as, tracing back to the medieval era, roses were an integral ingredient in culinary, medicinal, and perfumery recipes. Jenner's recipes specifically noted the different varieties of roses to be used, with red roses the most frequently cited (fourteen times). An innovative recipe that used roses for aromatherapy was: "A Remedy to Take A Way ye Pain in ye forepart of ye forehead And to Provoke Sleep: Rx A Piece of Red Poppy Cake As much as will Lay on yr forehead Cover ye Cake wth Red Rose Leaves; And Lavender Buds, And Rosemary Tops, Scrap on it Some nutmeg warm ye Cake between two Plates Pour on it Some water & vinegar."<sup>49</sup> Most commonly, however, roses were used in a water or conserve as a base of a cordial or ointment. It is important to note that although roses were widely grown in England, Jenner did not necessarily collect them herself. According to Patrick Wallis's findings, roses were the most prolific substance sold at apothecaries, with poppies in second place.<sup>50</sup>



**Figure 3.2: Herbal Ingredients in Jenner's Manuscript**

<sup>49</sup> Wellcome, WMS 3039, f. 37.

<sup>50</sup> Wallis, "Consumption, Retailing and Medicine", 39.

Saffron was also cited often in Jenner's recipes (Figure 3.2). It was believed to banish "whatever Humour offends the Body, [drive] back Inflammations, [and] being applied outwardly, increaseth Lust, [and provoke] Urine".<sup>51</sup> Saffron was cultivated in England by the eighteenth century and was grown in Walden, Essex which was close to the merchant exchanges of London.<sup>52</sup> Moreover, saffron was not common in all recipe collections.<sup>53</sup> Jenner's high usage of this fragrant spice suggests that she lived in an area where saffron was readily available, or that she needed to use the spice more often for specific remedies. The recipe "For the Jaundice" called for "Celandine Roots & Leaves 2 Handfulls, St Johns wort leaves & flowers one handfull Goose: dung dried 2 ounces Saffron dried 2 drams, ye inner rine of Barberries A little Handfull, Put all ys in A Pint of white wine [and] as much Spring water."<sup>54</sup> Saffron was a prevalent ingredient in jaundice recipes and Jenner's collection had several variations, indicating that she or a family member suffered from the illness. Roses and saffron are thus two examples of ingredients that could be grown locally but were often purchased, making them commodities that link domestic medical practices to the broader economy.

Two other popular herbal ingredients were common spice imports, nutmeg and cinnamon. Cinnamon was the second most common plant ingredient that Jenner cited (nineteen counts, fourteen percent) and nutmeg was cited twelve times (nine percent) (Figure 3.2). Both were relatively expensive compared to other common spices and cost around six or seven pence an ounce.<sup>55</sup> Presumably, this high cost was a result of the Dutch control over cinnamon and nutmeg at this time. Despite their price, the high usage of nutmeg and cinnamon is illustrative of

---

<sup>51</sup> Culpeper, *Pharmacopoeia Londinensis*, 57.

<sup>52</sup> Gideon Harvey's price inventory suggests that Indian and Spanish saffron were also available with prices at 3s. 6d. and 24s. respectively in the late seventeenth century. The price for English Saffron was 50s. Gideon Harvey, *The Family-Physician, and the House-Apothecary* (London: 1678), 121.

<sup>53</sup> Stobart's research on the household expenditures of four elite families indicates that there was almost no consumption of saffron in those homes. Stobart, "The Making of Domestic Medicine", 291.

<sup>54</sup> Wellcome, WMS 3039, f. 31.

<sup>55</sup> Stobart, "The Making of Domestic Medicine", 131.



the influence medicinal and culinary recipe collections had in the demand for spices and the consequent struggle for control over the spice trade monopoly between the Dutch and the British later in the century. With respect to their medicinal virtues, cinnamon aided digestion, eased labour pains, and helped “Coughs and defluxions of humours upon the Lungs”.<sup>56</sup> In her recipe, “Cinnamon Water M.W. [my way]”, Jenner infused half a pound of bruised cinnamon in “2 quarts of ye Best Brandy”.<sup>57</sup> Nutmeg on the other hand, was said to strengthen the brain, stomach, liver, and spleen as well as ease joint pains.<sup>58</sup> In Jenner’s recipe “A Good drink for weakness” powdered nutmeg and acorns were added to milk and rose water.<sup>59</sup> In conclusion, the above examples from Jenner’s manuscript convey the range and diversity of herbal ingredients that a recipe compiler could have used, and how particular commodities prevalent in the marketplace were valued in the home for treating sickness and preserving health.<sup>60</sup>

Non-herbal ingredients appeared in recipe collections in a multitude of combinations. Non-herbal ingredients were available in nature and the home or, if they were imported and exotic, purchasable at the apothecary. Most of the non-herbal liquids used in Jenner’s recipes were readily available in the home, being everyday food items. Alcohols, milk, and water were cited often because they constituted the liquid base of distilled medicines. Liquids were also used as vehicles for taking a prepared medicine, like a pill, but I only counted ingredients used in the preparation of the remedy, not for administration. The most often used liquid was white wine (twenty-one times, or approximately sixteen percent of Jenner’s recipes). Milk was at a slightly lower total of fourteen citations (ten percent) and beer and brandy were cited ten times each (seven percent) (Figure 3.3). The amount of liquid required is significant because it often

---

<sup>56</sup> Culpeper, *Pharmacopoeia Londinensis*, 20.

<sup>57</sup> Wellcome, WMS 3039, f. 10.

<sup>58</sup> Culpeper, *Pharmacopoeia Londinensis*, 59.

<sup>59</sup> Wellcome, WMS 3039, f. 35.

<sup>60</sup> Jenner’s more frequently cited herbal ingredients also appear to be the most common ingredients in the majority of collections that were surveyed in Leong, “Medical Recipe Collections”, chapter 1.

indicated the yield of the recipe. For instance, “A[n] Excellent Cordial Water for ye. H & St.[heart and stomach]” called for an entire bottle of white wine, indicating an approximate yield and an idea of the quantities of liquid ingredients called for in medicinal recipes, particularly distillation remedies.<sup>61</sup>

Alongside liquids, eggs and honey were each mentioned four times in the manuscript (Figure 3.3). Animal products were used more frequently in other recipe collections, but Jenner focused on waters and syrups and had fewer ointments and pastes; this then accounts for the deficit of animal products.<sup>62</sup> Two animals that Jenner did use were snails and earthworms. When describing the virtues of snails, Culpeper chided physicians for preparing snails improperly:

I cannot but admire at the simplicity of most Physicians, who prescribe that the Snails ought to be purged from their slime either with Salt or Bran before they be used; which if you do, you take away their virtues: for the reason why they cure a consumption is this; Man being made of the slime of the earth, the slimy substance recovers him when he is wasted.<sup>63</sup>

Jenner’s recipes clearly relied on a knowledge of the properties of snails, as she did not recommend drying them, just cleaning and crushing them. Jenner’s recipes contained a high proportion of such creatures, which were commonly used to treat consumption. Snails were cited in seven percent of the recipes and earthworms in three percent (Figure 3.3). Additionally, Jenner’s recipes sometimes called for large quantities. One recipe called for a peck of snails, while 800 snails were used in another recipe.<sup>64</sup> In one mixture for a cough in the lungs, the recipe instructed the reader, “Take of the water of Snails [and] of earth Worms of each half an ounce of ye Liquid Laudanum [tar]tarized 2 drams; Syrup of violets an ounce; ye Dose is one Spoonful

---

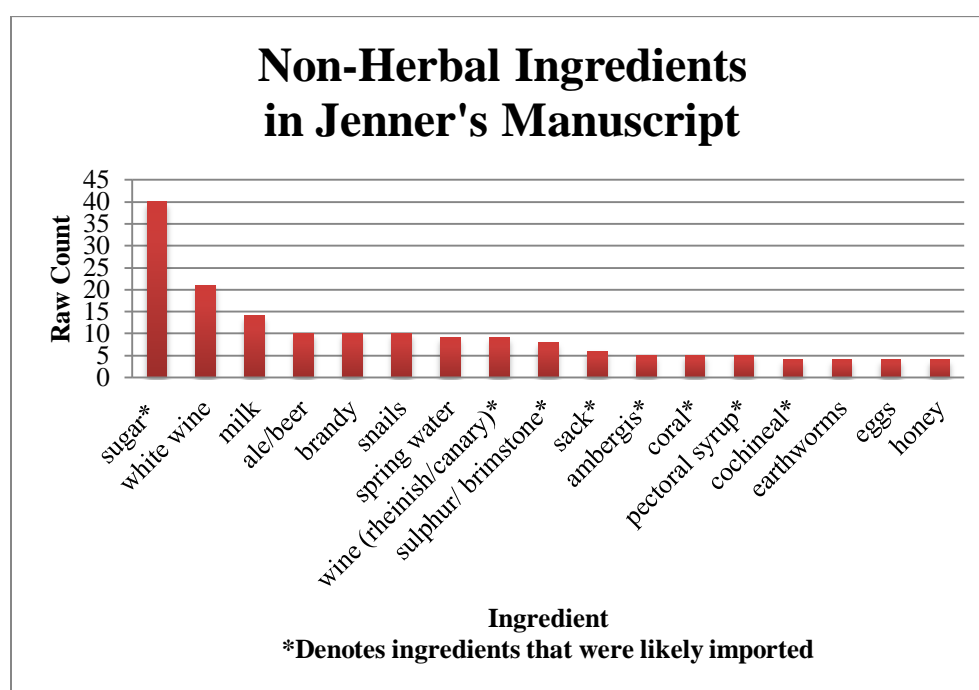
<sup>61</sup> Wellcome, WMS 3039, f. 18.

<sup>62</sup> Doreen Evenden Nagy observes that many reputable physicians, Thomas Willis for instance (whom Jenner cites), advocated the use of animal products and excreta. Hence, these products were not restricted to domestic medicine, even into the eighteenth century. Doreen Evenden Nagy, *Popular Medicine in Seventeenth-century England* (Bowling Green: Bowling Green State University Popular Press, 1998), 48.

<sup>63</sup> Culpeper, *Pharmacopoeia Londinensis*, 108-109.

<sup>64</sup> Wellcome, WMS 3039, f. 11.

At Bed time”.<sup>65</sup> Snails and earthworms were also useful for other ailments. Earthworms were good for severed nerves and provoking urine.<sup>66</sup> Snails were also beneficial in ointments and Jenner used them to make an “Oyl” for rickets in children.<sup>67</sup> Snails and earthworms, alongside other animal products and liquid bases, represent the types of everyday *materia medica* used in recipe collections that were attainable around the home. These ingredients illustrate the flexibility of what was used in medicine and an open-minded approach to sickness and therapeutics.



**Figure 3.3: Non-Herbal Ingredients in Jenner’s Manuscript**

Many non-herbal ingredients were purchased at the apothecary.<sup>68</sup> Sulphur (brimstone) was used in eight of Jenner’s recipes, or six percent (Figure 3.3). Ambergris, coral, and morphine-based pectoral syrup were each used in five of Jenner’s recipes and cochineal – the

<sup>65</sup> Wellcome, WMS 3039, f. 25.

<sup>66</sup> Ibid., f. 66.

<sup>67</sup> Ibid., f. 43.

<sup>68</sup> Approximately 43% of the ingredients in Leong’s database were compounds, suggesting that many were more easily acquired at the apothecary than preparing them in the home. Leong, “Medical Recipe Collections”, 104.

small insect from which the dye carmine is produced – was cited in four recipes (Figure 3.3). Ambergris had hot and dry virtues and strengthened the brain and nerves.<sup>69</sup> Jenner included a recipe for dissolving ambergris in her manuscript that promised to “keep 20 years & you may Always have Some by you, to Prefume Any Thing wth; viz: waters Cakes”.<sup>70</sup> Coral, especially red, was one of the most common ingredients found at an apothecary and it was used to “[stop] the immoderate flowing of the Terms, Bloody Fluxes, [and] the running of Whites in Women” as well as to cure bloody urine and ward off witchcraft.<sup>71</sup> Jenner used two drams of coral added to lemon juice and cinnamon water in her recipe “to Stay Vomiting”.<sup>72</sup> Another recipe “A Cordial Powder Given in A Feaver” indicated:

ye black tops of Crabs Claws in fine Powder 5 ounces of Red Coral & Pearl & white Amber; & Harts horn each Bezoar, of each one ounce, Contrayerva; & Centory; of ye Roots of each, A quarter of an ounce make it All into fine Powder & mix it all well together [sic] wth Jelly of Hartshorn Tinctured wth Saffron make ym up in little Balls dry ym Carefully & keep ym for use.<sup>73</sup>

Bezoar, in the above recipe, was used twice in Jenner’s manuscript. Bezoars were “a notable restorer of nature, a great Cordial, no way hurtful or dangerous; [were] admirable good in Fevers, Pestilences, and Consumptions,” although their use was controversial by the eighteenth century as experiments suggested that they were non-dissolvable and, therefore, indigestible.<sup>74</sup> Specialty items were often used in high quantities in some trades, like in the production of dyestuffs, perfumes, and chemicals and could be purchased at the apothecary. This represents the material connections between medicine, science, and industry. Moreover, because many of these non-herbal ingredients were exotic and imported, apothecary ingredients in recipe collections

---

<sup>69</sup> Culpeper, *Pharmacopoeia Londinensis*, 70.

<sup>70</sup> Wellcome, WMS 3039, f. 19.

<sup>71</sup> Wallis, “Apothecaries and the Consumption and Retailing of Medicines”, 26; Culpeper, *Pharmacopoeia Londinensis*, 70.

<sup>72</sup> Wellcome, WMS 3039, f. 32.

<sup>73</sup> *Ibid.*, f. 36.

<sup>74</sup> Culpeper, *Pharmacopoeia Londinensis*, 73; Frederick Slare, *Experiments and observations upon oriental and other bezoar-stones, which prove them to be of no use in physic...* (London, 1715), 34.

exemplify the role played by *materia medica* in commerce and consumerism on an international scale through supply and demand.

Recipe collections additionally cited non-herbal ingredients that were everyday and luxury commodities purchased at the grocer. Sugar was the ingredient cited by far the most frequently in Jenner's collection and it was the epitome of a consumer item. Sugar was by no means the only sweetener available and honey was more pervasive in earlier recipe collections.<sup>75</sup> Sweeteners were important components of medicine because they helped preserve remedies, made them palatable, and had medicinal qualities. Due to its increased availability and low cost, sugar's use as a sweetener was a conscious, practical choice for upper and middling class recipe compilers. Sugar was usually described as "double refined" or "sugar candy" and was specifically mentioned in forty of Jenner's recipes, or thirty percent (Figure 3.3). Numerous recipes also used the common phrase to "sweeten as you please" with sugar, suggesting that it was a preferred sweetener in the majority of Jenner's medicinal waters and syrups. But the quantities of sugar used were substantial. The recipe "To make ye Best Surfit Water" began with "A Gallon of ye Best Brandy [and] Put to it A Pound of Sugar", indicating just how much sugar might go into a medicinal water recipe that was being prepared by the gallon.<sup>76</sup>

Sugar's use in medicine was still controversial in the eighteenth century.<sup>77</sup> Culpeper described its use in medicine in his section on "Juices" as being "hot in the third degree, [it] strengthens the Lungs, takes away the roughness of the Throat, succours the Reins and the

---

<sup>75</sup> For the use of honey in other recipe collections see: Leong, "Medical Recipe Collections", 102; Stobart, "The Making of Domestic Medicine", 95; 108; 110 and footnote 384 on p. 105.

<sup>76</sup> Wellcome, WMS 3039, f. 7; In addition to sugar being used as a sweetener, many of the alcohols used as liquid bases for recipes, like brandy and white wine, also required sugar in their production.

<sup>77</sup> The controversy of sugar's use as a medicine also occurred in France. Sugar and other commodities were advertised with "de santé" in their names as a justification for the purchase of the luxury item. See: Colin Jones and Rebecca Sprang, "Sans-Culottes, Sans Café, Sans Tabac: Shifting Realms of Necessity and Luxury in Eighteenth-century France" in *Consumer and Luxury: Consumer Culture in Europe 1650-1850*, eds. Maxine Berg and Helen Clifford (Manchester: Manchester University Press, 1999), 37-62.

Bladder”.<sup>78</sup> In another section, however, Culpeper stated that “I never read any virtue of the root of Sugar Cane”.<sup>79</sup> One of the most common arguments against medicinal sugar was that it rotted teeth and gums.<sup>80</sup> Frederick Slare, a fellow of the Royal Society and Royal College of Physicians known for his work with Boyle on phosphorus, wrote in 1715 a report called “A Vindication of Sugars” that argued sugar was healthful.<sup>81</sup> In the report, Slare included “An Account of Mr. Malory [maternal grandfather]; who all his Life loved Sugar, after 80 Years had a new Set of Teeth, died about 100 Years Old”, which Slare used to support his argument that sugar had many virtues for treating internal and external ailments.<sup>82</sup> Medicinal sugar was another dimension of the social value, utility, and identity of the commodity, one that played a significant role in the supply and demand of sugar cane cultivation and refinement. Sugar is one example of a commodity that was becoming regularly available to middling and even lower classes in eighteenth-century England. Moreover, sugar was an important sweetener used to accompany chemical nostrums – purchased medicine that was rapidly becoming a popular choice for sufferers.

#### Ingredients in Print: Sir Robert Boyle’s “Choice and Safe” Medicinal Experiments

The published collection, *Medicinal Experiments: Or, A Collection of Choice and Safe Remedies For The most part Simple and easily prepared: Very Useful in FAMILIES and fitted for the SERVICE of Country People* by the Honourable R. Boyle Esq. Fellow of the Royal Society, indicates the popularity of pre-prepared ingredients over more traditional herbs into the eighteenth century. I focused on the first volume of Boyle’s three volume collection of 500 recipes. Volume I contains 100 recipes and is around forty-four pages. This first volume provides

---

<sup>78</sup> Culpeper, *Pharmacopoeia Londinensis*, 65.

<sup>79</sup> *Ibid.*, 2.

<sup>80</sup> Walvin, *Fruits of Empire*, 118.

<sup>81</sup> Lawrence M. Principe, “Slare, Frederick (1646/7–1727)”, *Oxford Dictionary of National Biography*, Oxford University Press, 2004. <http://www.oxforddnb.com/view/article/25715>.

<sup>82</sup> Slare, *Experiments and observations*, 90; 147.

a closer sample set size to Jenner's ninety-six page recipe collection and, more importantly, it is a specialized selection of Boyle's most favoured and trusted recipes.

Boyle was a scientist and recipe collector and his combined interests are representative of the close relationship between medicine and science in the eighteenth century. This relationship was especially present with Boyle because his scientific method and desire for efficacy were mirrored in his medical writing. Boyle's interest in medicine and his motivation for compiling this collection was, in part, due to his own continual illness. He remarked that, "I hope, suffice to shew [sic] that my Personal Maladies and Sickliness cannot rightly infer the inefficacy of the Medicines I impart or recommend."<sup>83</sup> Additionally, Boyle claimed his intention for creating the collection was through charity or "the Dictates and Philanthropy of Christianity".<sup>84</sup> Boyle described his recipes as "recommended to me by the Experience of others, or approv'd by my own".<sup>85</sup> Experience or 'testing' suggests that these were remedies he used most frequently. As well, readers would have been tempted to try these recipes first because they were tested and proved credible. Boyle wanted his correspondents to "make Tryal" of the recipes and "faithfully report the Success".<sup>86</sup> In other words, he wanted the recipes to be experienced firsthand, a maxim Steven Shapin attributes to the credibility of scientific gentlemen.<sup>87</sup>

Unique to Volume I, Boyle categorized his recipes by trustworthiness or efficacy into three categories: A "Recommended as very considerable and efficacious in its kind", B "inferior sort, but yet too valuable for their good operation", and C "good enough not to be despoiled".<sup>88</sup>

---

<sup>83</sup> Boyle, *Medicinal experiments*, A6.

<sup>84</sup> Ibid., A3; For a discussion on the religious implications of Boyle's writing see M. Hunter, "'The Reluctant Philanthropist: Robert Boyle and the 'Communications of Secrets and Receipts in Physick'" in *Religio Medici: Medicine and Religion in Seventeenth-Century England*, eds. O.P. Grell and A. Cunningham (Aldershot: Ashgate, 1996), pp. 247-272.

<sup>85</sup> Boyle, *Medicinal experiments*, Volume I preface.

<sup>86</sup> Ibid, A2.

<sup>87</sup> See chapter one for an explanation of Shapin's maxims and associated citations.

<sup>88</sup> Boyle, *Medicinal experiments*, Volume I preface.

This grading system shows how the recipes were valued by Boyle and it provided a quick reference for readers who were looking to select Boyle's most trusted remedies for particular ailments. Michael Hunter has argued that Boyle used this grading system in place of author citations to purposely protect the contributors' commercial medical practices.<sup>89</sup> Boyle wanted the remedies to be purchased, not prepared, and this is a further reason why his recipes were often simplistic and required pre-made ingredients. Finally, Boyle stated that many of his recipes were found in other printed collections.<sup>90</sup> This statement served as a citation of original authorship and also acted as a marker of credibility through repetitive transmission.

Using Boyle as a case study further highlights the gendered authorship of printed collections. His collection contained recipes and ingredients recommended for consumption by an elite male scientist to the lower classes. This marketing strategy allowed Boyle to pass off his expertise as charitable advice, preserving his credibility as a 'disinterested' scientist unconcerned with profit. Furthermore, Boyle's cautious approach to citing and evaluating his remedies likely helped him avoid conflicts with physicians. Boyle's collection demonstrates the extent of exchange of medical knowledge across gender and class boundaries when we consider that his intended readership included men and women of varying classes. This knowledge exchange also took place in Boyle's own home as he communicated and shared recipes frequently with his sister Lady Ranelagh, who was also noted for her recipe collections.<sup>91</sup> Moreover, several of Boyle's recipes were re-printed in other collections and distributed to a growing female audience. In a 1706 edition, *The Ladies Diary* included medicinal recipes and Boyle's recipes were featured. This was one of the only editions of the periodical to include recipes, particularly

---

<sup>89</sup> Michael Hunter, "The Reluctant Philanthropist", 262 as cited in Leong, "Medical Recipe Collections", 216.

<sup>90</sup> Boyle, *Medicinal experiments*, A6.

<sup>91</sup> For information on Lady Ranelagh see: Lynette Hunter, "Sisters of the Royal Society: The Circle of Katherine Jones, Lady Ranelagh" in *Women, Science and Medicine 1500-1700* eds. Lynette Hunter and Sarah Hutton (Thrupp: Sutton Publishing, 1997), 178-197.



medicinal recipes.<sup>92</sup> The re-publication of Boyle's remedies in a periodical targeted at a female audience is again suggestive of the authority elite men could gain by publishing philanthropic advice for preserving health.

In the publisher's letter to the reader found at the beginning of Boyle's work, he described the collection as containing, "a few safe Ingredients, commonly to be found at easie Rates in most Places".<sup>93</sup> This phrase indicates several points. First, the ingredients Boyle included in his recipes were advocated as trustworthy or "safe". Second, the recipes' supplies were widely available in "most Places", suggesting that they were intended to be purchased, not collected. Third, the phrase "easie Rates" implied that the ingredients were available cheaply and were therefore likely already being consumed at a high rate. This means that the ingredients found in Volume I were pervasive and cheap enough to be available to a wide demographic and are, therefore, strong indicators of the spread of medicinal commodities in the eighteenth century.

Volume I of Boyle's *Medicinal Experiments* was comprised of remedies for common ailments such as digestive problems, colds, fevers, sore throats, and strains. In this way, his collection can be classified as a "'just-in-case' medicine cabinet" because they were recipes that were practical for daily use.<sup>94</sup> Several of his recipes were more traditional and employed elements of folklore and Galenic medicine, like the wearing of an amulet on the chest to cure Ague, or dried pig's dung to cure dysentery.<sup>95</sup> Other recipes were more obviously part of the

---

<sup>92</sup> *The Ladies Diary: or, the Womens almanac* (London, 1706), 21. For the history of the Ladies Journal see: Shelly Costa, "The 'Ladies' Diary': Gender, Mathematics, and Civil Society in Early-Eighteenth-Century England," *Osiris*, 17 no. 2, Science and Civil Society (2002): 49-73; Patricia Phillips, *The Scientific Lady: A Social History of Women's Scientific Interests, 1520-1918* (London: Weidenfeld and Nicolson, 1990), 98-104; Bertha Monica Stearns, "Early English Periodicals for Ladies (1700-1760)," *Publications of the Modern Language Association of America (PMLA)* 48 no. 1(March, 1933): 38-60.

<sup>93</sup> Boyle, *Medicinal experiments*, A2.

<sup>94</sup> The term "'just-in case' medicine cabinet" is coined by Elaine Leong. Leong, "Making Medicines", 145.

<sup>95</sup> Boyle, *Medicinal experiments*, 8; 4.

Paracelsian trend of chemical preparations. For ease of access, Boyle italicized the ingredients, which would have made it easier for readers to skim through recipes, compile a shopping list, or inventory their cupboards. Out of 100 recipes in Volume I, Boyle cited 133 different ingredients which were included 212 times in total. Out of the 133 unique ingredients, sixty-seven were herbal, sixty-four were non-herbal, and two unknown. These numbers show that the range of ingredients used was more or less balanced between herbal and non-herbal ingredients. With the total count, however, it is apparent that non-herbal ingredients were favoured in frequency with 129 total citations of non-herbal ingredients, compared to eighty-one total herbal citations (and two unknown). In general, the number of ingredients used in a recipe ranged from only one to several, but no recipe was particularly complex. It is also important to note that the quantities of ingredients used in recipes were generally small and appeared to be for individual and immediate use, not stockpiling.

Boyle's collection as a whole listed many of the herbs that Jenner cited in her manuscript, but his favourite recipes in Volume I did not emphasize their use. This is likely because herbs often needed to be distilled to activate their medicinal properties. Distillation was costly, time-consuming, and not particularly accessible to the rural poor. When herbs were cited, it was often implied that they were to be purchased.<sup>96</sup> There were pre-prepared "oils" or syrups as well as imported or specialty herbs like saffron, tobacco, red sanders, gums and plant resins, hemp, and cork. Thus, only a minority of Boyle's herbal ingredients in Volume I were likely collected rather than purchased. From Figure 3.4, it is apparent that only a few herbal ingredients were frequently cited by Boyle: currants or raisins, saffron, nutmeg, and garlic. Currants or raisins – used interchangeably – were included in four percent of the Volume I recipes. In comparison,

---

<sup>96</sup> Wallis suggests that there was no obvious division in rich or poor over the use of herbs. The choice to use herbal ingredients over the increasingly popular synthetic medicines was thus not necessarily class based. Wallis, "Apothecaries and the Consumption and Retailing of Medicines", 15.

Jenner's manuscript used raisins fourteen times and currants, twice. English currants were known to "cool the Stomach" and calm fevers, while raisins of the sun were said to "help infinnities [sic] of the Breast and Liver, restore Consumptions, [and] gently cleanse and move to Stool".<sup>97</sup> Raisins (or currants) were used in Boyle's recipe "A Lime-water for Obstructions and Consumptions" where half a pound of currants or raisins were added to an infusion of sassafras, liquorice, and aniseeds in a gallon of lime water.<sup>98</sup> Although this recipe contained several herbal ingredients, its base was lime water, a non-herbal ingredient that needed to be purchased from an apothecary. Garlic was another herbal ingredient Boyle used and it appeared in three percent of the Volume I recipes (Figure 3.4). In the recipe, "An approv'd Medicine to drive the Stone, and cure Suppressien [sic] of Urin, proceeding from it" it instructed the reader to "Take the Roots of *Wild Garlick* (by some Country People call'd *Crow Garlick*) wipe them very clean, stamp them very well in a Mortar of Stone or Glass, and strain out the Juice."<sup>99</sup> Kidney stones were one of the most common ailments in the early modern era and Boyle suffered from them often. This recipe for the stone differs substantially from the six recipes for the stone found in Jenner's collection which were much more complex and required several ingredients. Jenner advised, for instance, applying boiled parsnip to the lower belly, or taking ginger, pepper corns and egg shells boiled with rosemary in a white wine drink.<sup>100</sup>

---

<sup>97</sup> Culpeper, *Pharmacopoeia Londinensis*, 59-60.

<sup>98</sup> Boyle, *Medicinal experiments*, 7.

<sup>99</sup> *Ibid.*, 39.

<sup>100</sup> Wellcome, WMS 3039, f. 42.

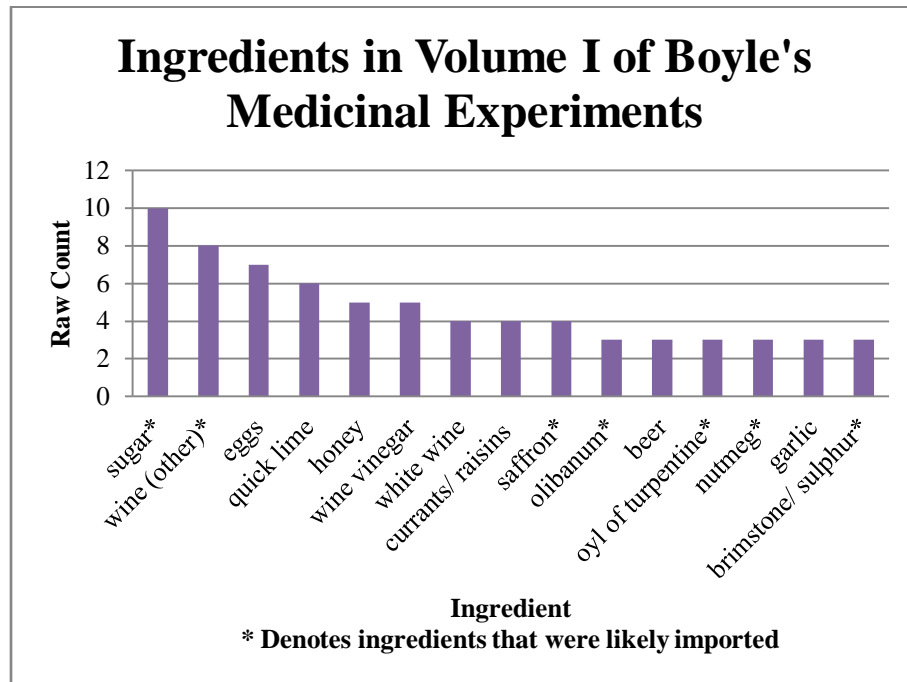


Figure 3.4: Ingredients in Volume I of Boyle's *Medicinal Experiments*

Boyle's non-herbal ingredients also tended to be purchased. At least forty of the non-herbal ingredients in Volume I would have needed to be purchased at the apothecary or the grocer. The only non-herbal ingredients that were readily available in the home, or in nature, were often food items: wine, honey, eggs, milk, bread, and fats, as well as earthworms, snails, clay and biological waste (dung and urine). As in Jenner's manuscript, liquids were used as a base for most remedies in Volume I. White wine was used in four percent of Boyle's recipes and other varieties of wine were used in eight percent (Figure 3.4). This percentage does not include the use of wine as a vehicle for administration. Similarly, wine vinegar was also used as a liquid base and was used in five percent of the recipes. Eggs are an example of an animal product used frequently in Boyle's recipes, at seven percent (Figure 3.4). This is a higher percentage than Jenner's collection which indicates that Boyle's remedies were more often salve or ointment based than distilled waters. One recipe "To allay heat in the Eyes, proceeding from sharp

Humours” called for an egg white dropped into water with added sugar, was almost identical to a recipe found in Jenner’s manuscript:

For Itching & watering Eyes An Excellent Remedy Dr. Clos...: Beat ye white of an [sic] new laid egg beat it to A dropping wa:ter Put thereto half A Spoonful of Red Rosewater as much Pouder of B. Sug: Candy as will lay on A sixpence mix it & wash yr eyes often wth A feather<sup>101</sup>

Evidently, this recipe was favoured and trusted by both Boyle and Jenner and it is an example of a remedy used and transmitted across gender and class boundaries. Jenner attributed the remedy to a Dr. Clos and it was included in both her private manuscript and Boyle’s published collection.

Within the non-herbal category, specialty apothecary ingredients were often cited in Boyle’s recipes such as quick lime, olibanum, oyl of turpentine, and sulphur (Figure 3.4). Boyle’s first recipe serves as an example of the use of olibanum (frankincense) and sugar. Olibanum was used in three percent of the Volume I recipes, and sugar in ten percent. Not surprisingly, sugar was the most common ingredient in Boyle’s collection (Figure 3.4). Used to treat coughs, this first recipe called for “choice Olibanum finely powder’d, from one Scruple to half a Dram, and mix carefully with it an equal weight of Sugar-candy, (white or brown) or, in want of that, of fine Sugar.”<sup>102</sup> Both of these ingredients were multi-purpose, sugar used in food and olibanum in perfume, and they exemplify the flexibility of what could be considered medicine in eighteenth-century households. Brimstone, or flower of sulphur, was used in three percent of Boyle’s recipes and is another example of an apothecary item (Figure 3.4). Brimstone “help[ed] Coughs and rotten Phlegm”, but was also effective in alleviating leprosy, jaundice,

---

<sup>101</sup> Boyle, *Medicinal experiments*, 37; Wellcome, WMS 3039, f. 16.

<sup>102</sup> Boyle, *Medicinal experiments*, 1.

worms, and lethargy if “snuffed up the nose”.<sup>103</sup> In one of Boyle’s recipes, sulphur was used to treat fits of Agues and the recipe was easily prepared by sifting the sulphur and adding it to a bit of honey.<sup>104</sup> Jenner used brimstone in several of her cough remedies and it was often accompanied by herbs like ivy and elecampane.<sup>105</sup> These examples of ingredients recommended by Boyle to the poor for purchase suggest that there was growing availability of drugs to rural areas and to the lower classes and consequently, a wider network of consumerism within England during the eighteenth century.

### Conclusion

The overlapping spheres of production and consumption of ingredients in the medical marketplace situate domestic medicine within the broader economy. It is valuable to account for this relationship to contextualize the household’s role in the rapidly developing British Empire during the eighteenth century. How ingredients were valued, used, and identified as consumer and medicinal items was imperative to the notion of trust in ingredients and in the locations from where they were obtained. *Materia medica* consequently played a central role in how Britons perceived their place in upholding social order through domestic caregiving, and subsequently, in economic and imperial activities. This was true with both every-day and exotic ingredients. Commodities like sugar were used in a range of recipes and it is important to consider how their use in medicine shaped commercial monopolies and colonial plantations. With exotics, the desire for strange and innovative cures at the domestic level drove the demand within the medical marketplace and spurred further botanical exploration, simultaneously expanding British influence.

---

<sup>103</sup> Culpeper, *Pharmacopoeia Londinensis*, 71.

<sup>104</sup> Boyle, *Medicinal experiments*, 14.

<sup>105</sup> Wellcome, WMS 3039, f. 25.

Jenner's and Boyle's collections highlight the variety of ingredients found in recipe collections. It is evident that many recipe compilers had a developed knowledge of *materia medica*, indicating that they were active and savvy participants in the medical marketplace and that their collections are important sources of eighteenth-century knowledge of botany and pharmaceuticals. In comparison to Jenner's manuscript, which focused on herbal ingredients for distillation, Volume I of Boyle's *Medicinal Experiments* offers a perspective of eighteenth-century medicine that focused on purchased medicine for the lower classes. Boyle's collection was marketed as a comprehensive guide for quick, cheap, and simple remedies for families and rural sufferers. Due to this readership demographic, it is significant that Boyle advised his readers to buy their medicines rather than employing a doctor's services, or preparing complex and time-consuming remedies. Boyle's collection is therefore an indicator of the shift in consuming medicine in the eighteenth century. Consumers wanted cheap remedies, instantaneous gratification, and a guarantee that what they were consuming was effective and trustworthy. Consuming medicine, from the perspective of all classes, was thus a marker of the consumer revolution.

For the elite, botany and recipe experimentation went beyond medical necessity, becoming socially acceptable pastimes. The eighteenth century was a period of heightened scientific discourse that was accessible to the literate public. Eighteenth-century recipe collections reflect this scientific atmosphere and thus need to be considered distinct from earlier collections. Jenner can be viewed as an example of an elite woman who combined two popular scientific pursuits – botany and chemistry, dedicating her time and money to distillation. Her recipe collection is part of a much larger tradition than just making medicine for household health: it is evidence of women's contribution to the history of science.

## Conclusion

Recipe collections originated as practical guides for managing health and household. Although eighteenth-century collections incorporated many of the trusted remedies of their seventeenth-century predecessors, their content was distinctly specialized and structured. These collections remain important for understanding how eighteenth-century society approached sickness. The increased availability of purchased medicine in England during the consumer revolution meant that recipe collections were no longer medical necessities for many upper and middling class households. Making medicine in the home became a choice and opportunity for men and women to self-identify as authors, amateur scientists, and medical practitioners. The eighteenth century was a ground-breaking era in scientific inquiry and recipe collections reveal the domestic contributions to a cultural obsession with natural knowledge. As such, my aim in this thesis was to consider these prevalent yet undervalued sources as part of the history of science, a re-appraisal that significantly contributes to bridging the gaps in the historiographies of medicine and science and one that creates potential for a larger investigation I intend to pursue in the future.

This thesis has built upon previous studies of recipe collections by looking at similar themes of authorship, gender and class, and the exchange of knowledge within the medical marketplace. A case study approach of Jenner's manuscript has allowed me to focus on one household, generating a sense of what recipes, equipment, and ingredients were commonly available to elites. Jenner's focus on cordial waters and syrups raises a further question of the role of distillation in eighteenth-century households. In an era where medicine was increasingly an everyday commodity, the time-consuming practice of distilling medicine, which had once been treated as an obligation of charitable aristocratic women, became a leisure pursuit of the



scientifically inclined. Printed recipe collections have provided an important comparison to Jenner's manuscript for examining the wider context of contributor citations and language strategies, equipment and the gendered authorship and readership of distillation guides, and the range of *materia medica* used in the home from traditional botanicals to chemical nostrums. When considered collectively, these print collections alongside Jenner's manuscript reveal the drastic changes that took place in the eighteenth-century domestic medical activities.

Trust was a fundamental framework of eighteenth-century customs that was apparent in all transactions within the medical marketplace and integral to domestic medicine. Recipe collection writing strategies resembled the empirical writing and trust maxims, described by Steven Shapin, found in the publications of scientific societies. Recognizing these parallels is an important first step in relating broader social customs to natural philosophy. Trusted equipment and clear technical instructions were requirements for making medicine and important when distilling. Quality equipment was part of a practitioner's credibility and specific instructions helped ensure a recipe was created properly and considered efficacious. Moreover, trust in ingredients was essential as Britons developed an appreciation and curiosity for imported exotic botanicals and chemical ingredients and as purchased pharmaceuticals became available to the lower classes.

Part of this project was to examine recipe collections as objects of material history. As literary texts, they were commodities within the print marketplace and sources of knowledge exchange across communities and intellectual networks. Equipment cited within collections has a material history in itself and, when explored in the context of collections, serves as an indicator of consumerism in eighteenth-century households. Moreover, the multi-purpose use and experimental value of kitchen paraphernalia and distillation instruments is evident. The *materia*

*medica* found within recipe collections are, furthermore, key to the material history of domestic medicine and are closely tied to the history of consumerism and empire. Everyday commodities like sugar became symbols of empire and spice trade monopolies created international conflict. In addition, botany gained popularity as an accomplished pastime of elites. The knowledge of botanicals present in distillation collections like Jenner's points to a combined interest of chemistry and botany in some upper class households. Subsequently, the interest of England's elite in exotics as medicines and curiosities eventually led to extensive bioprospecting missions to find new medicaments.

This thesis has addressed the issue of gender roles within the household. Domestic activities including distillation have often been interpreted by historians as feminine, subsequently dismissing male domestic medical interests and involvement in household management. Viewing the household, as well as the kitchen and still room, as a non-feminized space encourages further discussion of the roles of men and women in maintaining household health and, even more broadly, preserving social order. Moreover, treating the kitchen as a site of creation and innovation not specific to women reinforces its centrality as an experimental space. It places the emphasis on the process of making medicine, rather than on the unreliable nature of women in science that has often dominated historiography. Much work has been done recently on redefining what constitutes a credible experimental space. If we continue to explore the everyday activities within the home as informal experimental practice, the household's role in preserving social order can be seen as more than just health related.

Historians often fall into the habit of eighteenth-century natural philosophers, classifying history into tangible categories necessary for our own comprehension. Histories of medicine, science, and commerce are often told separately and it is worth questioning to what extent this

tendency has hindered our understanding of the multi-faceted and rapidly evolving nature of eighteenth-century society. Moreover, although the ‘great man’ narrative of the history of science and medicine has given way to a wider discussion of natural knowledge at a cultural level, more work is needed to reveal the extent of scientific engagement at a social level. The unassuming histories of ordinary individuals recording daily activities often say more about a society than those of the extraordinary few who made highly theoretical contributions to a small intellectual community. Positioning Jenner’s recipe collection within a number of historiographies has shown the importance of considering daily domestic activities and women as contributors to the social, economic, and intellectual changes taking place in the eighteenth century. At the core of Elizabeth Jenner’s medicinal remedies and distillation waters lay true scientific expertise, making her one of England’s domestic chemists.

## Bibliography

### Primary Sources:

Boyle, Sir Robert. *Medicinal experiments: or, a collection of choice and safe remedies, for the most part simple and easily prepared: very useful in families, and fitted for the service of country people... By the Honourable R. Boyle Esq; Fellow of the Royal Society. In three parts. Containing above Five Hundred Choice Receipts. The fourth edition: enlarged with a supplement.* London, 1703. *Eighteenth Century Collections Online*.

Cooper, A. (Ambrose). *The complete distiller: containing, I. The method of performing the various processes of distillation, with Descriptions of the several Instruments... The Whole delivered in the plainest manner, for the Use both of Distillers and Private Families. By A. Cooper, distiller.* London, 1757. *Eighteenth Century Collections Online*.

Culpeper, Nicholas. *Culpeper's English physician; and complete herbal...By E. Sibly, Fellow of the Harmonic Philosophical Society at Paris; and Author of the Complete Illustration of Astrology.* London, 1789. *Eighteenth Century Collections Online*.

\_\_\_\_\_. *Culpeper's Complete Herbal: A Book of Natural Remedies for Ancient Ills.* Hertfordshire: Wordsworth Editions Ltd, 1995.

\_\_\_\_\_. *The English physician enlarged; with three hundred and sixty nine medicines, made of English herbs, that were not in any impression until this... By Nich. Culpepper, Gent. Student in Physick and Astrology.* London, 1708. *Eighteenth Century Collections Online*.

\_\_\_\_\_. *Pharmacopoeia Londinensis: or, the London dispensatory... By Nich. Culpeper ...* London, 1718. *Eighteenth Century Collections Online*.

Dossie, Robert. *The elaboratory laid open, or, the secrets of modern chemistry and pharmacy revealed: Containing many Particulars extremely necessary to be known to all Practitioners in Medicine.* London: 1758. *Eighteenth Century Collections Online*.

Harvey, Gideon. *The Family-Physician, and the House-Apothecary.* London, 1678. *Early English Books Online*.

Markham, Gervase. *The English Housewife*, edited by Michael R. Best. Kingston: McGill-Queen's University Press, 1986.

Munk's Roll, Royal College of Physicians, <http://munksroll.rcplondon.ac.uk/>.

Newington, Thomas. *A Butler's Recipe Book, 1719*, edited by Philip James; with wood engravings by Reynolds Stone; with an introduction by Ambrose Heath. Cambridge: Cambridge University Press, 1935.

Plat, Sir Hugh. *The jewell house of art and nature conteining diuers rare and profitable inuentions, together with sundry new experimentes in the art of husbandry, distillation, and moulding / faithfully and familiarly set downe, according to the authors owne experience, by Hugh Platte*. London, 1594. *Early English Books Online*.

The Royal Society, The Sackler Archive Database of Royal Society Fellowship.  
<http://www2.royalsociety.org/DServe/dserve.exe?dsqIni=Dserve.ini&dsqApp=Archive&dsqCmd=Show.tcl&dsqDb=Persons&dsqPos=3&dsqSearch=%28Surname%3D%27willis%27%29>.

Slare, Frederick. *Experiments and observations upon oriental and other bezoar-stones, which prove them to be of no use in physic...By Frederick Slare, Fellow of the College of Physicians, and of the Royal Society*. London, 1715. *Eighteenth Century Collections Online*.

Smith, E. (Eliza). *The Compleat Housewife, or, Accomplish'd Gentlewoman's Companion*. London: Literary Services and Production, 1968.

Tipper, John, ed. *The Ladies Diary: or, the Womens almanac*. London, 1706. *Eighteenth Century Collections Online*.

Wellcome, WMS 3039, Jenner, Elizabeth. "Elizabeth Jenner Her Book Anno Domini 1706. For makeing of Waters and Syrups: and other Physical Remedies." in, *Women and medicine [microform]: remedy books, 1533-1865, from the Wellcome Library for the History and Understanding of Medicine*, edited by Sara Pennell. London, 2004.

Wellcome, WMS 7851, Anon. *English Recipe Book, late 17<sup>th</sup>-early 19<sup>th</sup> century*.

Willis, Thomas. *Dr. Willis's receipts for the cure of all distempers: together with an appendix, containing the general forms of prescription for vomits, purges, Diureticks, Sudorificks, Cordials, and Opiats. Collected out of the writings of that learned and Eminent physician, and faithfully translated into English*. London, 1701. *Eighteenth Century Collections Online*.

W.M. *The Queen's closet opened being incomparable secrets in physick, chyrurgery, preserving, candying, and cookery...* Tenth Edition. London, 1698. *Early English Books Online*.

#### Secondary Sources:

Amussen, Susan Dwyer. *An Ordered Society: Gender and Class in Early Modern England*. Oxford: Basil Blackwell, 1988.

- Archer, Jayne Elisabeth. "Women and Alchemy in Early Modern England." Ph. D. thesis, Cambridge University, 1999.
- \_\_\_\_\_. "Women and Chymistry in Early modern England: The Manuscript Receipt Book (c. 1616) of Sarah Wigges" in *Gender and Scientific Discourse in Early Modern Culture*, edited by Kathleen P. Long. Farnham: Ashgate Publishing, 2010.
- Beier, Lucinda McCray. *Sufferers & Healers: the Experience of Illness in Seventeenth-century England*. London: Routledge & Kegan Paul, 1987.
- Berg, Maxine. "New Commodities, Luxuries and their Consumers in Eighteenth-Century England" in *Consumer and Luxury: Consumer Culture in Europe 1650-1850*, edited by Maxine Berg and Helen Clifford. Manchester: Manchester University Press, 1999. pp. 63-87.
- \_\_\_\_\_. *Luxury and Pleasure in Eighteenth-Century Britain*. Oxford: Oxford University Press, 2005.
- Bickman, Troy. "Eating the Empire: Intersections of Food, Cookery and Imperialism in Eighteenth-Century Britain." *Past and Present* 198 (Feb, 2008):71-109.
- Blake, John B. "The Compleat Housewife." *Bulletin of the History of Medicine* 49 no.1 (1975): 30-42.
- Cliffe, J.T. *The World of the Country House in Seventeenth-Century England*. London: Yale University Press, 1999.
- Cook, Harold J. *The Decline of the Old Medical Regime in Stuart London*. Ithaca: Cornell University Press, 1986.
- \_\_\_\_\_. *Matters of Exchange: Commerce, Medicine, and Science in the Dutch Golden Age*. New Haven: Yale University Press, 2007.
- \_\_\_\_\_. "The History of Medicine and the Scientific Revolution," *Isis* 102 (2011): 102-108.
- Cooper, Alix. *Inventing the Indigenous: Local Knowledge and Natural History in Early Modern Europe*. Cambridge: Cambridge University Press, 2007.
- Costa, Shelly. "The 'Ladies' Diary': Gender, Mathematics, and Civil Society in Early-Eighteenth-Century England." *Osiris* 17 no.2 Science and Civil Society (2002): 49-73.
- Cox, Nancy. "'A Flesh pott, or a Brasse pott or a pott to boile in': Changes in Metal and Fuel Technology in the Early Modern Period and the Implications for Cooking." in *Gender and Material Culture in Historical Perspective*, edited by Moira Donald and Linda Hurcombe. New York: St. Martin's Press, 2000. pp. 143-157.

- Curth, Louise Hill, ed. *From Physick to Pharmacology: Five Hundred Years of British Drug Retailing*. Aldershot: Ashgate Publishing, 2006.
- Dear, Peter. *Discipline and Experience: The Mathematical way in the Scientific Revolution*. Chicago: Chicago University Press, 1995.
- Drayton, Richard. *Nature's Government: Science, Imperial Britain, and the 'Improvement' of the World*. Yale: Yale University Press, 2000.
- Eamon, William. *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture*. Princeton: Princeton University Press, 1994.
- Evenden Naggy, Doreen. *Popular Medicine in Seventeenth-century England*. Bowling Green: Bowling Green State University Popular Press, 1998.
- Field, Catherine. "'Many hands hands': Writing the Self in Early Modern Women's Receipt Books" in *Genre and Women's Life Writing in Early Modern England*, edited by Michelle Dowd and Julie Eckerle. Aldershot: Ashgate, 2007. pp. 49-64.
- Fissell, Mary E. *Patients, Power and the Poor in Eighteenth Century Bristol*. Cambridge: Cambridge University Press, 1991.
- \_\_\_\_\_. "Introduction: Women, Health and Healing in Early Modern Europe." *The Bulletin of the History of Medicine* 82 no. 1 (2008): 1-17.
- Forbes, R.J. *A Short History of the Art of Distillation: From the Beginnings up to the Death of Cellier Blumenthal*. Leiden: E.J. Brill, 1970.
- French, H.R. *The Middle Sort of People in Provincial England 1600-1750*. Oxford: Oxford University Press, 2007.
- Girouard, Mark. *Life in the English Country House: a Social and Architectural History*. New Haven: Yale University Press, 1978.
- Gooding, David, Trevor Pinch and Simon Schaffer. "Introduction: some uses of experiment" in *The Uses of Experiment: Studies in the Natural Sciences*, edited by David Gooding, Trevor Pinch and Simon Schaffer. Cambridge: Cambridge University Press, 1989. pp. 1-28.
- Hall, Kim. "Culinary Space, Colonial Spaces: The Gendering of Sugar in the Seventeenth Century" in *Feminist Readings of Early Modern Culture: Emerging Subjects*, edited by Valerie Traub, M. Lindsay Kaplan and Dymrna Callaghan. New York: Cambridge University Press, 1996. pp. 168-190.
- Hansen, Craig Ashley. *The English Virtuoso: Art, Medicine, and Antiquarianism in the Age of Empiricism*. Chicago: The University of Chicago Press, 2009.

- Harkness, Deborah. "Managing an Experimental Household: The Dees of Mortlake and the Practice of Natural Philosophy." *Isis* 88 no. 2 (June, 1997): 247-262.
- Harvey, Karen. "Men Making Home: Masculinity and Domesticity in Eighteenth-Century England." *Gender and History* 21 no. 3 (November 2009): 520-540.
- Hobby, Elaine. *Virtue of Necessity: English Women's Writing 1649-88*. London: Virago Press, 1988.
- Hull, Suzanne. *Women According to Men: The World of Tudor-Stuart Women*. Walnut Creek: AltaMira Press, 1996.
- Hunter, Lynette and Sarah Hutton, eds. *Women, Science and Medicine 1500-1700: Mothers and Sisters of the Royal Society*. Thrupp: Sutton Publishing Limited, 1997.
- Hunter, Lynette. "Women and Domestic Medicine: Lady Experimenters, 1570-1620" in *Women, Science and Medicine 1500-1700: Mothers and Sisters of the Royal Society*, edited by Lynette Hunter and Sarah Hutton. Thrupp: Sutton Publishing Limited, 1997. pp. 89-107.
- \_\_\_\_\_. "Sisters of the Royal Society: The Circle of Katherine Jones, Lady Ranelagh." in *Women, Science and Medicine 1500-1700: Mothers and Sisters of the Royal Society*, edited by Lynette Hunter and Sarah Hutton. Thrupp: Sutton Publishing, 1997. pp. 178-197.
- \_\_\_\_\_. "Books for daily life: household, husbandry, behaviour." in *The Cambridge History of the Book Volume IV 1557-1695*, edited by John Barnard and D.F. McKenzie. Cambridge: Cambridge University Press, 2002. pp. 514-532.
- Hunter, M. "'The Reluctant Philanthropist: Robert Boyle and the 'Communications of Secrets and Receipts in Physick'" in *Religio Medici: Medicine and Religion in Seventeenth-Century England*, edited by O.P. Grell and A. Cunningham. Aldershot: Ashgate, 1996. pp. 247-272.
- Jenner, Mark S.R. and Patrick Wallis. "The Medical Marketplace" in *Medicine and the Market in England and its Colonies, c.1450-c.1850*, edited by Mark S.R. Jenner and Patrick Wallis. New York: Palgrave Macmillan, 2007. pp. 1-23.
- Jewson, N.D. "Medical Knowledge and the Patronage System in 18th Century England." *Sociology* 8 no.3 (1974): 369-385.
- Johns, Adrian. "Science and the Book" in *The Cambridge History of the Book Volume IV 1557-1695*, edited by John Barnard and D.F. McKenzie. Cambridge: Cambridge University Press, 2002. pp. 274-303.
- Jones, Colin and Rebecca Sprang. "Sans-Culottes, Sans Café, Sans Tabac: Shifting Realms of Necessity and Luxury in Eighteenth-century France" in *Consumer and Luxury*:



- Consumer Culture in Europe 1650-1850*, edited by Maxine Berg and Helen Clifford. Manchester: Manchester University Press, 1999. pp. 37-62.
- Jordanova, Ludmilla. "Gender and the Historiography of Science." *British Journal for the History of Science* 26 (1993): 469-483.
- \_\_\_\_\_. *Sexual Visions: Images of Gender in Science and Medicine between the Eighteenth and Twentieth centuries*. Madison: University of Wisconsin Press, 1989.
- King, Steven. "Accessing Drugs in Eighteenth-Century Regions" in *From Physick to Pharmacology: Five Hundred Years of British Drug Retailing*, edited by Louise Hill Curth. Aldershot: Ashgate Publishing, 2006. pp. 49-78.
- Klein, Ursula and E.C Spary. "Introduction: Why Materials?" in *Materials and Expertise in Early Modern Europe: Between Market and Laboratory*, edited by Ursula Klein and E.C. Spary. Chicago: Chicago University Press, 2010. pp. 1-24.
- Knight, Leah. *Of Books and Botany in Early Modern England: Sixteenth-century Plants and Print Culture*. Aldershot: Ashgate, 2009.
- Knorr-Cetina, Karin. "The Couch, the Cathedral and the Lab: On the Relationship between Experiment and Laboratory Science" in *Science as Practice and Culture*, edited by A. Pickering. Chicago: University of Chicago Press, 1992. pp. 113-138.
- Leong, Elaine. "Medical Recipe Collections in Seventeenth-century England: Knowledge, Text and Gender." D. Phil. thesis, University of Oxford, 2005.
- \_\_\_\_\_. "Making Medicines in the Early Modern Household." *The Bulletin of the History of Medicine*, 82 no. 1 (2008): 145-168.
- Leong, Elaine and Sara Pennell. "Recipe Collections and the Currency of Medical Knowledge in the Early Modern Marketplace" in *Medicine and the Market in England and its Colonies, c.1450-c.1850*, edited by Mark S.R Jenner and Patrick Wallis. New York: Palgrave Macmillan, 2007. pp. 133-152.
- Leong, Elaine and Alisha Rankin, "Introduction" in *Secrets and Knowledge in Medicine and Science, 1500-1800*. eds. Elaine Leong and Alisha Rankin. Farnham: Ashgate, 2011. pp. 1-22.
- Lunger Knoppers, Laura. "Opening the Queen's Closet: Henrietta Maria, Elizabeth Cromwell, and the Politics of Cookery." *Renaissance Quarterly* 60 (2007): 464-499.
- McKendrick, Neil. "The Consumer Revolution of Eighteenth-Century England" in *The Birth of a Consumer Society: The Commercialization of Eighteenth-Century England*. edited by Neil McKendrick, John Brewer and J.H. Plumb. Bloomington: Indiana University Press, 1982. pp. 1-8.

- \_\_\_\_\_. "Josiah Wedgwood and the Commercialization of the Potteries" in *The Birth of a Consumer Society: The Commercialization of Eighteenth-Century England* edited by Neil McKendrick, John Brewer and J.H. Plumb. Bloomington: Indiana University Press, 1982. pp. 99-144.
- Mintz, Sidney. *Sweetness and Power: The Place of Sugar in Modern History*. New York: Viking, 1985.
- Moran, Bruce T. *Distilling Knowledge: Alchemy, Chemistry and the Scientific Revolution*. Harvard: Harvard University Press, 2006.
- Muldrew, Craig. "Interpreting the Market: the Ethics of Credit and Community Relations in early modern England." *Social History* 18 no. 2 (May, 1993): 163-183.
- \_\_\_\_\_. "From a 'light cloak' to an 'iron cage': Historical Changes in the Relation between Community and Individualism." in *Communities in early modern England*, edited by Shepard and Withington. Manchester: Manchester University Press, 2000. pp. 156-179.
- Pelling, Margaret. "Women of the Family? Speculations around Early Modern British Physicians." *Social History of Medicine* 8 no.3 (1995): 383-401.
- \_\_\_\_\_. "Compromised by Gender: The Role of the Male Medical Practitioner in Early Modern England" in *The Task of Healing: Religion and Gender in England and the Netherlands, 1450-1800*, edited by Hilary Marland and Margaret Pelling. Rotterdam: Erasmus Publishing, 1996. pp. 101-133.
- \_\_\_\_\_. *The Common Lot: Sickness, Medical Occupations and the Urban Poor in Early Modern England* essays by Margaret Pelling. London: Longman, 1998.
- \_\_\_\_\_. *Medical Conflicts in Early Modern London: Patronage, Physicians, and Irregular Practitioners 1550-1640*. Oxford: Clarendon Press, 2003.
- Pennell, Sara. "The Material Culture of Food in Early Modern England, circa 1650-1750." D. Phil. thesis, University of Oxford, 1997.
- \_\_\_\_\_. "'Pots and Pans History': the Material Culture of the Kitchen in Early Modern England." *Journal of Design History* 11 no. 3 (1998): 201-215.
- \_\_\_\_\_. "Perfecting Practice? Women, Manuscript Recipe and Knowledge in Early Modern England." in *Early Modern Women's Manuscript Writing: Select Papers from the Trinity/Trent Colloquium*, edited by Victoria Burke and Jonathan Gibson. Aldershot: Ashgate, 2004. pp. 237-258.
- Phillips, Patricia. *The Scientific Lady: A Social History of Women's Scientific Interests 1520-1918*. London: Weidenfeld and Nicolson, 1990.

- Porter, Dorothy and Roy Porter. *Patient's Progress: Doctors and Doctoring in Eighteenth-century England*. Stanford: Stanford University Press, 1989.
- Porter, Roy. "Lay Medical Knowledge in the Eighteenth Century: The Evidence of *The Gentlemen's Magazine*." *Medical History* 29 (1985): 138-168.
- \_\_\_\_\_. *Doctor of Society: Thomas Beddoes and the sick trade in late-eighteenth century Enlightenment*. London: Routledge, 1992.
- \_\_\_\_\_. *Disease, Medicine and Society in England, 1550-1860* Second Edition. Cambridge: Cambridge University Press, 1995.
- \_\_\_\_\_. *Quacks, Fakers, and Charlatans in Medicine*. Stroud: Tempus, 2003.
- Rankin, Alisha. "Becoming an Expert Practitioner: Court Experimentation and the Medical Skills of Anna of Saxony (1532-1585)." *Isis* 98 (2007): 28-53.
- Roberts, Michael. "Afterword: Recovering a lost inheritance: the marital economy and its absence from the prehistory of Economics in Britain." in *The Marital Economy in Scandinavia and Britain, 1400-1900*, edited by Maria Ågren and Amy Louise Erickson. Aldershot: Ashgate, 2005. pp. 239-256.
- Schiebinger, Londa. *The Mind Has No Sex?* Cambridge MA: Harvard University Press, 1989.
- \_\_\_\_\_. *Plants and Empire: Colonial Bioprospecting in the Atlantic World*. Cambridge MA: Harvard University Press, 2004.
- Schiebinger, Londa and Claudia Swan, eds. *Colonial Botany: Science, Commerce, and Politics in the Early Modern World*. Philadelphia: University of Pennsylvania Press, 2005.
- Secord, James A. "Newton in the Nursery: Tom Telescope and the Philosophy of Tops and Balls, 1761- 1838." *History of Science* 23 no. 2 (June 1985): 127-151.
- Shapin, Steven. "The House of Experiment in Seventeenth-Century England." *Isis* 79 (1988): 373-404.
- \_\_\_\_\_. *A Social History of Truth: Civility and Science in Seventeenth-Century England*. Chicago: University of Chicago Press, 1994.
- Smith, Lisa Wynne. "Women's Health Care in England and France (1650--1775)." Ph. D. thesis, University of Essex, 2002.
- \_\_\_\_\_. "Reassessing the Role of the Family: Women's Medical Care in Eighteenth-century England." *Social History of Medicine* 16 no. 3: 327-342.

- \_\_\_\_\_. "The Body Embarrassed? Rethinking the Leaky Male Body in Eighteenth-century England and France." *Gender & History* 23 (2011): 26-46.
- Stearns, Bertha Monica. "Early English Periodicals for Ladies (1700-1760)." *Publications of the Modern Language Association of America (PMLA)* 48 no. 1(March, 1933): 38-60.
- Stewart, Larry. *The Rise of Pubic Science: Rhetoric, Technology, and Natural Philosophy in Newtonian Britain, 1660-1750*. New York: Cambridge University Press, 1992.
- Stine, Jennifer K. "Opening Closets: The Discovery of Household Medicine in Early Modern England." Ph. D. dissertation, Stanford University, 1996.
- Stobart, Anne. "The Making of Domestic Medicine: Gender, Self-Help and Therapeutic Determination in Household Healthcare in South-West England in the Late Seventeenth Century." Ph. D Thesis, University of Middlesex, 2008.
- Tague, Ingrid. *Women of Quality: Accepting and Contesting Ideals of Femininity in England, 1690-1760*. Suffolk: The Boydell Press, 2002.
- Tebeaux, Elizabeth. "Women and Technical Writing, 1474-1700: Technology, Literacy, and Development of a Genre" in *Women, Science and Medicine 1500-1700: Mothers and Sisters of the Royal Society*, eds. Lynette Hunter and Sarah Hutton. Thrupp: Sutton Publishing Limited, 1997. pp. 29-62.
- Teigen, Philip. "This Sea of Simples: The Materia Medica in Three Early Receipt Books." *Pharmacy in History* 22 no. 3 (1980): 104-108.
- Thompson, E.P. *The Making of the English Working Class*. London: Victor Gollancz Ltd., 1980.
- Vickery, Amanda. *The Gentleman's Daughter: Women's Lives in Georgian England*. New Haven: Yale University Press, 1999.
- \_\_\_\_\_. *Behind Closed Doors: At Home in Georgian England*. Yale: Yale University Press, 2009.
- Wall, Wendy. *The Imprint of Gender: Authorship and Publication in the English Renaissance*. Ithaca: Cornell University Press, 1993.
- Wallis, Patrick. "Apothecaries and the Consumption and Retailing of Medicines in Early Modern London" in *From Physick to Pharmacology: Five Hundred Years of British Drug Retailing*, edited by Louise Hill Curth. Aldershot: Ashgate Publishing, 2006. pp. 13-28.
- \_\_\_\_\_. "Consumption, Retailing and Medicine in Early Modern London." *Economic History Review* 61 no. 1 (2008): 26-53.
- \_\_\_\_\_. "Exotic Drugs and English Medicine: England's Drug Trade, c. 1550-c. 1800." *Social History of Medicine* (2011) [forthcoming].

Walvin, James. *Fruits of Empire: Exotic Produce and British Taste, 1660-1800*. New York: NYU Press, 1997.

Wear, Andrew. *Knowledge & Practice in English Medicine, 1550-1680*. Cambridge: Cambridge University Press, 2000.

Weatherill, Lorna. "A Possession of One's Own: Women and Consumer Behavior in England, 1660-1740." *Journal of British Studies* 25 (April, 1986): 131-56.

Wilson, C. Anne. *The Country House Kitchen 1650-1900: Skills and Equipment for Food Provisioning*, edited by Pamela Sambrook and Peter Brears. London: Alan Sutton Publishing, 1996.

Tertiary Sources:

*Dictionary of Traded Goods and Commodities, 1550-1820* (2007). URL: <http://www.british-history.ac.uk/report.aspx?compid=58889>

Principe, Lawrence M. "Slare, Frederick (1646/7–1727)", *Oxford Dictionary of National Biography*, Oxford University Press, 2004.  
<http://www.oxforddnb.com/view/article/25715>.